# 2015

# Public Works Department Business Plan







**City of Sugar Land** 

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# PUBLIC WORKS DEPARTMENT 2015 BUSINESS PLAN

# **EXECUTIVE SUMMARY**

The Public Works Department is responsible for the repair, operation and maintenance of the City's public streets, traffic control devices, sidewalks, bridges, drainage system, stormwater, facilities, fleet, solid waste and recycling, water utilities and animal services.

Through the Water Utilities Division, the Public Works Department is responsible for the administration and operation of the City's water production, treatment, distribution, and wastewater collection and treatment including regulatory compliance for all mandated Environmental Protection Agency, EPA, and Texas Commission on Environmental Quality, TCEQ, programs. The City's water and wastewater utilities are financed and operated in a manner similar to private business enterprises, where costs of providing the services to the public are financed primarily through user fees. Funding is primarily managed through two separate enterprise funds: the Utility fund and the Surface Water Fund. The Stormwater Program is funded from the City's General Fund.

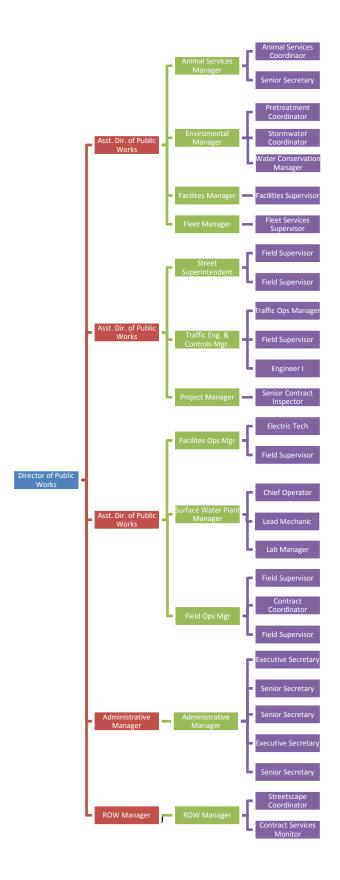
The Department also administers a number of contracts with private sector firms for a range of goods and services that play an important role in effectively maintaining the City's infrastructure, which provides essential services to external customers while supporting the functions of the City's staff.

#### **MISSION STATEMENT**

The City of Sugar Land Public Works Department will strive to deliver superior and responsive internal and external customer-oriented service by providing safe, reliable and effective services in a cost-effective and innovative manner, emphasizing environmental stewardship and compliance with all regulatory and policy requirements.

# **ORGANIZATIONAL & FUNCTIONAL STRUCTURE**





### **2015 PROGRAM OF SERVICES**

#### **PUBLIC WORKS ADMINISTRATION - 1405**

#### **PROGRAM SUMMARY**

The Administration Division of Public Works sets the annual departmental goals and strategies as well as provides organizational direction to accomplish yearly objectives. The Division is also responsible for proving analysis to ensure all other Divisions within the department operate within their appropriated budgets. Additionally, the Division is responsible for managing the call center and entering work orders.

#### SERVICES AND SERVICE LEVELS

#### Service: Customer Call Center

The call center is managed by the Administration Division and calls are answered by a live person, 24 hours a day, and 7 days a week. The call center is responsible for fielding all calls for Public Works and tracking them in the HEAT system. The staff manages the calls by either giving out requested information or, if work is requested, by generating work orders. Incoming calls and customer requests originate from various sources including residential, commercial, developers, builders, and other city departments. Calls for service can also be generated through phone calls, the City's website, and the City of Sugar Land iPhone app.

After hour calls for service are handled by an after hour answering service and delegated to on-call staff as appropriate. The after hour calls are handled by an answering service Monday thru Thursday, 5:00 PM-7:00 AM, 5:00PM-8:00AM on Friday and 24 hours on Saturday and Sunday. A quarterly customer service survey is conducted, based on the External Customer Service Policy CA-117. The policy requires a customer survey be conducted and the results are sent to the Public Works Executive Team member throughout the year.

# **Service: Budget Development**

The Administration Division maintains communication between personnel, City administration, elected officials, and the public through various reports including agenda request documentations, FYIs, memorandums, and formal reports. The Division interacts with the public and responds to residents, customer concerns or inquiries via phone and email and face-to-face visits. The Division will also represent the City at HOA meetings and other civic functions, as requested.

#### DEPARTMENTAL COMMUNICATION

The Administration Division maintains communication between personnel, City administration, elected officials, and the public through various reports including agenda request documentations, FYIs, memorandums, and formal reports. The Division interacts with the public and responds to residents, customer concerns or inquiries via phone and email and face-to-face visits. The Division will also represent the City at HOA meetings and other civic functions, as requested.

#### DEPARTMENTAL COMPLIANCE

The Division ensures that staff is compliant with interdepartmental and intradepartmental policies, and is responsible for updating intradepartmental policies as necessary. This includes coordination with Human Resources for training and personnel issues, serving as the central take point for submissions to other departments for payroll and accounting, ushering agenda items through the City Secretary's office and archiving. The Division also ensures all internal deadlines are met by serving as the liaison for coordination with other departments.

# **Service: Emergency Management**

Should the Emergency Operations Center be activated, personnel and equipment are available 24 hours a day, 7 days a week to be deployed prior to, throughout, and post disaster. The objective is to reduce the severity of impact and address the aftermath of a disaster in order to restore facilities and infrastructure, as well as, to provide support to other City departments upon request. All Public Works equipment and personnel will be available to respond to any disaster through the coordination of internal and external resources. The Division is also responsible for ensuring that its portion of the Emergency Operations Plan, Annex K, is updated annually.

#### SERVICES LEVEL EXPECTATIONS & MEASURES

Program: Administration	
Service	Service Level Expectation
Customer Call Center	Maintain or exceed a 90% customer service survey rating of "satisfied" or better.
Budget Development	Ensure at least 98% of the departmental budget is spent in the fiscal year
Emergency Management	Annex K of the City's Emergency Operations Plan is updated annually by May 15th to ensure accuracy .

# STREETS & DRAINAGE - 1410

#### **PROGRAM SUMMARY**

The Streets & Drainage Division is responsible for the administration and operation of the City's public streets, sidewalks, bridges, and drainage system maintenance. Operations are divided into North and South Divisions with Highway 59 being the dividing line.

#### SERVICES AND SERVICE LEVELS

#### **Service: Bridge Inspection**

There are currently 70 bridges owned by the City. The Division visually inspects each bridge structure annually, looking for any problems needing immediate or future scheduled repair. Biannual inspections are performed by the State (TXDOT) and reports are sent to the City with recommendations for repairs if warranted.

# **Service: Railroad Crossing Inspection**

The Streets Division inspects all railroad grade crossings quarterly. During this process, an inspector reports loose rails, ties, concrete panels, cross arms or any other defects to Union Pacific. Defects identified to the asphalt approaches adjacent to the crossings are maintained by the Division. The Streets Division removes and replaces the asphalt at the railroad crossings to maintain a smooth ride over the crossings. When working in the railroad rights-of-way, Union Pacific Railroad is always contacted.

The Streets Division coordinates with the other entities as needed to ensure safety for all workers and the public. Public notification of a scheduled repair project is given at least two days in advance of the work schedule. Notification is made to the general public through use of the message board and by notifying Sugar Land Dispatch.

# Service: Sidewalk Program & Americans with Disabilities Act Ramp Compliance

The Division is responsible for approximately 450 miles of sidewalk and ADA curb ramps within street right-of-way. The Division repairs sidewalk as requested by residents and as identified in annual inspections. Repairs are made by utilizing both in-house crews and outside contractors. Visual inspections are made daily while driving to and from job sites. Areas in need of repair are added to the database and corresponding GIS coverage map. A priority ranking is given for each repair. Level 1 priority includes major sidewalk failures, which are greater than 3-4 inches between panels. Level 2 priorities include failures of 1-3 inches between panels. Minor trip hazards, which are classified as level 3 priorities, are 1 inch or less and are contracted out as necessary.

The Public Works Department performs an annual sidewalk assessment to identify new trip hazards/deficiencies, which continue to develop because of drought situations, and tree growth. The routine assessments aid in identifying funding needs for future years.

### Service: Pavement Management Program

The Division is responsible for approximately 782 lane miles of concrete pavement and curbs. Annual inspections of all roadways throughout the City are used to determine and record all failures and from these inspections, repairs are prioritized based on severity, roadway classifications and size. Staff then determines which repairs will be addressed and by which method.

The size of the deficiency and work required determines whether the repair will be completed by the city crew members or a contractor. The Division repairs broken curbs as needed throughout the city except for driveway connections and curb cuts.

The Division recently completed a comprehensive pavement assessment, which identified the expected life of all roadways and recommended appropriate projects through the 5-year CIP. Utilizing the IMMP Data viewer and Pavement Investment Module Software, the Division has an updated and prioritized inventory of needed repairs throughout the city.

#### PAVEMENT REPAIR & MAINTENANCE

In accordance with the Pavement Assessment, an annual inspection is completed before the street rehabilitation contract is bid so there is a current list for the contractor. Pavement repair and replacement prioritization is based on the Pavement Condition and Roadway Classification for each pavement section.

In addition, the Division conducts a verification of streets and curbs within the City and allocates the budget accordingly. Typically, annual street rehabilitation repairs are handled via the City's 5-Year CIP.

#### **CONCRETE SLAB LIFTING**

Concrete slab lifting is a process used to restore structurally sound concrete pavement that has settled over time to its proper elevation. The process reduces or eliminates standing water and improves ride quality. Concrete slab lifting is a contracted service, currently provided through the Fort Bend County Interlocal Purchasing Agreement.

An inventory list of all candidate sites for a concrete raising is maintained by the Division. The Division inspects all locations upon completion to ensure the standing water has been eliminated or reduced to less than a quarter of an inch in depth, the allowed tolerance. Pavement failures that are not addressed by raising are addressed through the On-Call Service Contract or the CIP Street Rehabilitation Project.

#### **CONCRETE RESTORATION**

Approximately 40 percent of water repairs require removal of existing sidewalks, driveways, or streets. After the Water Utilities Division finishes the repairs and the affected area has dried up and settled,

Public Works crews set forms and pour concrete back to its original state. Smaller repairs like sidewalks pavement patches will be poured using the Division's concrete mixing trailer and larger jobs require concrete be delivered or may be outsourced. If the number of requests exceeds the Division's capacity, small contracts with contractors are utilized to ensure these issues are resolved in a timely manner.

#### **Service: Street Sweeping**

A contractor performs sweeping services and uses vacuum type street sweepers, which are more efficient in removing dust and dirt particles than mechanical broom sweepers. Street Sweeping operations are based on two cycles. The Division has a routine monthly cycle, which consists of arterials, major and minor collectors with heavy tree canopies and no residential frontage. The second cycle is a supplement to the services performed by Tx DOT on Highway 59. The cycle performs sweeping along Highway 59 main lanes and intersections once a month. No sweeping is performed in residential areas. The Division inspects each location for contract compliance after each sweeping cycle. The field supervisor inspects key areas to determine if additional sweeping is needed.

#### **Service: Banners & Flags**

The Streetlight Banner and Flag Placement Program policy, PW105, sets procedures for the City's placement of streetlight banners and flags at City-owned public facilities and within the public ROW.

Flags are placed at fifteen major street intersections for President's Day, Memorial Day, Flag Day, Independence Day and Veteran's Day. Flags are installed at dawn and removed at dusk of the day recognized. The banners and flags are installed by City crews and are purchased through an outside vendor.

# **Service: Street Light Inspection**

The Division inspects all streetlights within the street ROW quarterly for proper operation. Any street light found not working is documented and reported to CenterPoint or the relevant HOA for repair. Average repair time is three to four days for minor issues. Major repairs can take up to two to four weeks.

#### **Service: Pest Control & Prevention**

The Mosquito Control Program effectively controls the adult mosquito population through an aggressive larvicide and adulticide application by utilizing City staff and contractors.

#### **MOSQUITO SPRAYING**

The mosquito spraying service is performed under contract by licensed pesticide applicators. The current most effective chemical, Kontrol 30+30, is distributed with a UVL Mister that is mounted on a pickup truck and distributed along all city streets, and within City Parks every Friday night beginning at

9:00 p.m. and concluding at dawn. This service is scheduled by the Division, which normally begins in May and continues through October.

During heavy infestation of the mosquito pest, additional spraying is requested. The Division provides routine updates in the City Newsletter, SLTV, and press releases to the news media describing precautions residents can take to protect themselves as proactive management practices to reduce nuisance mosquitoes. The Division conducts routine inspections to verify proper application methods and documents problem areas.

#### LARVICIDE TREATMENT

Larvicide briquettes are placed in standing water sites throughout the city in open ditches, culverts, low areas in the street right-of-way. The proactive use of larvicide is the most effective approach in combating mosquitos, because it prevents the mosquito larva from hatching out and becoming an adult mosquito. Managing an effective larvicide program reduces the need to spray mosquito adulticide.

Areas of frequent standing water and possible breeding sites for mosquitoes are documented via GIS to create a visual map of treated locations. The Division applies 1 briquette of larvicide per every 100 square foot of standing water with each application.

#### MOSQUITO TRAPPING

Mosquito trapping is performed once a week during the breeding season of April through October. Trapped mosquitos are collected, counted and sent in to the Texas Department of State Health Services for testing of the West Nile Virus. Routine trapping helps the Division determine when additional spraying is needed.

#### **ON-SITE INSPECTIONS**

On-site inspections are performed at the customer's request. During an inspection, staff will meet with the resident and perform a full property inspection. The goals of these inspections are to eliminate breeding areas and educated the resident on how to prevent additional mosquito incidents.

#### **Service: Drainage Maintenance**

The Division monitors detention ponds, maintains ditches, storm sewers, vegetation in the Oyster Creek waterway, and three dams. In addition to these activities, the Division also responds to major rain events.

Though the City owns three dams, they are operated by the Gulf Coast Water Authority (GCWA). In 2010, the Texas Commission of Environmental Quality (TCEQ) mandated that all dam owners must develop and receive TCEQ approval of a Dam Emergency Operations Plan (EAP). Public Works has developed Emergency Management Procedures and operational inspection procedures for the dams and have submitted them to TCEQ for approval.

The Division monitors detention ponds in order to allow for safe, positive drainage and to prevent loss of life and property. Routine maintenance is performed at MUD 21 pump station to keep debris from blocking the inflow and this ensures the pump system is maintained and working as efficiently as possible. Crews check and monitor discharges so pumped water does not recycle.

The Division also mows grass in a fenced area around the MUD 21 pump station. The rest of the facility, including the detention ponds, is mowed by an outside contractor (rough cut mowing contract) managed by the Parks and Recreation Department. Other detention ponds throughout the City are owned and maintained by an HOA, Tx DOT, or a private company. The Division monitors privately maintained detention ponds throughout the City to ensure proper drainage as well as water born vegetation outbreaks.

# **Activity: Water Hyacinth Control**

The Division applies 15 applications in Oyster Creek per year to control vegetation within the Oyster Creek watershed within the City limits. Applications usually occur in the warm weather months but may continue year round depending on the level of vegetation in the water.

#### **Activity: Storm Sewer Maintenance**

Currently there are approximately 338 miles of open ditch and storm sewer lines, and approximately 7,635 storm sewer inlets. Routine inspections of the storm sewer inlets and open ditches are performed before and during heavy rain events to ensure positive drainage and to reduce flooded streets and the possibility of loss of life and property. Any homeowner complaints are responded to within a 24 hour period.

Flood gates are inspected quarterly, operated and grease applied to the stem to make sure they operate freely. Outfall pipes and slope pavement on the large drainage channels are inspected quarterly for any failure or erosion that could affect positive flow from the subdivisions. Storm sewer manholes are repaired and reset as needed. The Division also budgets annually for priority repairs that cannot be addressed by City forces. This is done through a renewal service contract, funded through the City's CIP, for localized drainage improvements to outfalls, storm pipe failures and inlet/manhole failures.

For larger ditch projects, assistance is available through a renewal Interlocal Agreement in place between Fort Bend County and the City of Sugar Land. The A-22 Drainage channel is maintained by the Fort Bend County Drainage District. Levee Improvement District (LID) ditches within the City limits are maintained and operated through a contracted operator hired and paid by the LID.

Periodically open ditch cleaning is required to remove silt that has accumulated in the bottom of the ditches and culvert. Depending on the scope of work, in-house employees are capable of cleaning small sections of open ditch.

#### **Activity: Rain Event Response**

Following inclement weather events, the Division may receive reports of high water accumulating from residents or Sugar Land dispatch. It is the responsibility of the Division to ensure no leaves or debris restricting flow. When the storm sewer system is at full capacity, the water will start ponding on the streets and cause street flooding. When this occurs, crews place barricades at the intersections to alert the motorists of high water.

#### DAM MAINTENANCE

While the City owns the dam system, GCWA operates the dam system. The system consists of three dams. GCWA personnel manually operate dam 1 and dam 2 by removing the boards at the spillway, while Dam 3 is automated. Staff monitors the operation at the dam to assist GCWA operators, if needed. The Amil Gates at the Brooks Street diversion are a flood control device, which open and close automatically based on water levels in the channel. The gates are operated and maintained by the City. During normal working hours crews are available to respond in a matter of minutes to any type of call. After normal work hours, calls are received from the answering service and the on-call employee handles the calls for service.

In case of an emergency and additional personnel are needed, the on-call person has a list of employees and managers that are available to assist at any time.

# **SERVICES LEVEL EXPECTATIONS & MEASURES**

Service	Service Level Commitments
Bridge Inspection	To efficiently inspect all bridges on an annual basis, compile a list of deficiencies, prioritize repair needs, and develop a plan for repair.
Railroad Crossing	Inspect all railroad crossings quarterly, and report deficiencies to the R/R
Sidewalk Program	Inspect all sidewalks annually.
Sidewalk Program	Budget needs identified and adjusted annually to meet repair needs
Sidewalk Program	In house staff repair annually 4,000 linear feet of sidewalk
Pavement Mgmt. Program	A full city wide pavement assessment is performed every 5 years via a consultant.
Street Sweeping	To provide street sweeping services to non -residential roadways on a monthly basis
Banners & Flags	Hanging of Banners & Flags complies with City Policy PW 105.
Street Light Inspection	To perform street light inspections on a quarterly basis. Document lights found not working and report to CenterPoint for repair
Pest Control & Prevention	Manage the mosquito spraying activities during the months of May thru October based on need.
Pest Control & Prevention	Larvacide applications are performed every 150 days based on need
Pest Control & Prevention	Mosquito trapping is performed every week during the mosquito season weather permitting
Pest Control & Prevention	Onsite inspections are performed when requested by residents usually the same day
Drainage Maintenance	Homeowner complaints are responded to within a 24 hour period
Water Hyacinth Control	Water Hyacinth spraying occurs on average 15 times per year. Sometimes weather may prohibit spray applications.
Storm Sewer Maintenance	Inspect flood gates quarterly.
Storm Sewer Maintenance	An average of 50 inlets and 30 pipe repairs are made each year with staff
Storm Sewer Maintenance	Regular dam inspections are performed monthly
Rain Event Response	Storm sewers are inspected and cleaned if necessary before and during a heavy rain event
Rain Event Response	Dams are visually inspected during and after a rain event

# **TRAFFIC - 1420**

#### **PROGRAM SUMMARY**

The Traffic Engineering and Operations Division are responsible for ensuring safe and efficient operations of traffic throughout the City. The Division is involved in the design, operation, and maintenance of traffic signals, school zones, roadway signs, pavement markings, and Railroad Wayside Horn systems. Additionally, the Division maintains the high mast lighting systems on freeways and state highways within the City.

#### SERVICES AND SERVICE LEVELS

# Service: Traffic Control Device Maintenance and Management

The Traffic Division is responsible for maintenance and management of all traffic control devices which include traffic signals, wayside horns, pavement markings, and road signs. It is essential that these devices be properly maintained to provide motorists with safe and efficient roadways. The Traffic Operations Division operates and maintains 85 traffic signals, 56 roadside flashers, and 10 railroad wayside horns within the City.

In order to ensure rapid response to service calls, the Division keeps an inventory of materials on hand. Items that are on inventory include sign making materials, electronic traffic signal equipment, traffic signal poles, and complete traffic signal cabinets.

The Division has personnel working offset shifts from 7 a.m. until 7 p.m. on weekdays. This work schedule has personnel available to respond to traffic concerns within 30 minutes during both morning and evening rush hours without having to call someone in from home. The Division's rotation schedule ensures that one traffic technician is on call 24 hours a day, 365 days a year.

In case of a traffic incident, the Traffic Operations Division will respond with the traffic response trailer to assist the Police Department and the Fire Department in emergencies where mitigation of traffic congestion and traffic control required. The traffic response trailer is equipped with traffic drums, cones, barricades, temporary stop signs, and will be in route to location within 30 minutes. When we barricade the roadway and detour traffic, the first responders are able to safely operate without fear of coming in contact with traffic. The Division will also manually operate traffic signal intersections near an incident scene to relieve congestion that may have been a result of the incident.

In cases where a loss of commercial power occurs, Uninterruptible Power Supply (UPS) units have been installed in all signalized intersections. UPS systems enhance the safe operation of signalized intersections in the event of a power outage for up to four to six hours. For longer duration outages, an emergency response trailer equipped with ten generators will be deployed to power traffic signals. These services are available within the incorporated City limits 24 hours a day, 365 days a year.

### **Activity: Pavement Markings**

The Traffic Engineering and Operations Division provides routine inspections and maintenance of all the City's pavement markings. This includes the perennial replacement of worn pavement markings. Due to the workload, a contractor is utilized to assist staff. The material of choice is multipolymer pavement markings due to their superior reflective properties and durability; under typical conditions the markings have an average life of five years.

In-pavement lighting, as seen at US 59 and SH 6, is also maintained by the Traffic Division. This form of pavement marking helps motorist navigate through the triple left turn safer by clearly outlining lanes when the southbound traffic signal indication is green.

# **Activity: Sign Maintenance**

All street and traffic signs within the City are inspected for damage, vandalism, good reflective properties, and that they are in conformance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD). The Traffic Operations Division is responsible for the maintenance of approximately 8,000 signs. Due to normal wear, a sign has an approximate life of 10 - 12 years before it has to be refurbished unless it is physically damaged.

A sign technician is on call 24 hours a day, 365 days a year. If a concern involving a stop sign or yield sign is reported, the sign technician is dispatched immediately and typically arrives within 30 minutes.

#### **Activity: Traffic Signal Maintenance**

All traffic signals are inspected through the City's annual preventive maintenance program to help insure proper operation and to minimize malfunctions. As part of the inspections, technicians check for obvious problems that may occur due to exposure to the environment. All equipment is cleaned, tested for proper operation, and replaced if it is found to be defective.

The Annual Preventive Maintenance Program is a proactive method used by the City to help prevent emergency calls for a signal repair during critical rush hour traffic. It has shown that conducting our own preventive maintenance program gives the technicians "ownership" of their work, and pride in workmanship. The Division can also perform most repairs and any necessary traffic signal modifications in house

# **Service: Engineering**

The Traffic Division provides engineering services that review and manage City's CIP Projects, specifically relating to the implementation of the City's five year ITS Operations Plan and traffic infrastructure rehabilitation. In addition to these activities, the Division also performs data collection, traffic studies, and traffic signal optimization as necessary.

### **Activity: CIP Projects**

Projects involving intersection capacity improvements, access management, and complete replacement or new installation of a traffic signal are funded through the CIP in most cases. Engineering design work is typically performed by engineering consultants and managed by Traffic Division staff. The construction work is advertised for bids and constructed by contractors. Due to traffic signals being in a specialized field, the Division performs all inspections. This requires several years of experience and at a minimum the inspector should have a Traffic Level II Certification from International Municipal Signal Association (IMSA).

The City's Intelligent Transportation System (ITS) is also funded primary through CIP projects. The City has installed a citywide wireless network to allow communication to all of the traffic signals in the City. This network brings back real time data back to the Traffic Management Center where it is processed by the Central Management System(software). The real time data helps the Traffic Division make changes immediately and analyze data to better address any issues.

### **Activity: Traffic Studies**

The Division is responsible for all traffic related concerns within the City. Depending on the situation, the Traffic Division may require a study be conducted according to the guidelines set in Texas Manual on Uniform Traffic Control Devices (TMUTCD), Institute of Transportation Engineers(ITE) guidelines, and/or the Highway Capacity Manual(HCM). Traffic Impact analysis, speed studies, cut-through traffic, traffic signal warrants, all-way stop warrants, and site distance studies are some of the types of studies that are conducted to address any traffic concerns with the best possible resolution. These studies are performed by the Traffic Division Engineering Staff and Engineering consultants contracted by the Division depending on the complexity. Most studies are finalized within 60 days of initial request.

The Traffic Division will collect turning movement counts, speed counts, 24 hr volume counts, and classification counts in order to complete any studies. This data is also used to perform signal timing optimizations.

#### **Activity: Traffic Signal Operation**

The Traffic Division is responsible for the operation of all the traffic signals. The main goal is to effectively and safely move traffic within the City. The Division constantly monitors City arterials not only via traffic cameras in the Traffic Management Center but by measuring travel times every quarter. Additionally, sensors are installed at the intersections to gather real-time traffic volumes which are processed by traffic management software to optimize signal timings. Traffic signal re-timing efficiently and safely moves traffic, reduces stops, and provides for safe and efficient pedestrian activity. In case of an emergency or high volume traffic event, the City's Traffic Management Center has the capability to make timing changes remotely.

Service: Right-of-Way Use Permits

The Traffic Engineering and Operations Division reviews and approves right-of-way use permit applications to allow the placement of any facilities or equipment in the public right-of-way. This may include but is not limited to any kind of underground utilities (public or private), structures, signs, irrigation, and approval for any lane closures.

The Division issues a permit if the application complies with the Urban Beautification Policy and Ordinance No. 1070. The Public Works Department staff locates utilities for permit holders to help minimize any damage to traffic infrastructure, public water, wastewater, and sewer lines. Utilities can be located within 2 days of the permit being issued. Public Works staff is responsible for ensuring the permitee is observing proper traffic control according to the TMUTCD, public infrastructure design standards, job site safety compliance and restoration requirements. The Public Works Director can issue a written "Stop Work Order" or revoke permits for violations to the ROW Management Policy and/or Ordinance No.1070.

### Service: Street and Roadway Lighting Maintenance

The Traffic Division maintains all lighting on City roadways including the freeways and highways. This service keeps motorists and pedestrians safe while moving around the City.

# **Activity: Street Lighting**

The Traffic Division is responsible for the management of City's street lighting agreement with Centerpoint Energy (CPE). The franchise agreement states that CPE will furnish, install, own and maintain all street light fixtures throughout the City for a monthly service rate. The service rate covers any damages or outages and saves the City money by not having to maintain approximately 9,000 fixtures. Quarterly inspections of the entire City are done to report any outages to CPE for correction. Requests for streetlight outages or repairs are tracked through the HEAT system. When the calls are received, the administration staff enters the pole number provided by the resident into the CenterPoint website. Some citizens choose to report the information to CenterPoint themselves.

Traffic Engineering and Operations also reviews and approves new lighting systems and proposed upgrades to current lighting systems in accordance with the City's design standards. The City allotment provided by CenterPoint Energy is utilized to offset costs of upgraded systems. The Traffic Division coordinates with CenterPoint Energy to have lights installed and billed appropriately. The Division is currently also working on a program to convert privately operated and maintained street lighting systems in neighborhoods to the CPE operated system.

As part of the City's Continuous Roadway Lighting Maintenance Agreement with the Texas Department of Transportation (TXDOT), the City is responsible for the maintenance of the high mast and continuous roadway lighting along TXDOT's roadway systems within the City. All high mast towers, roadway lights, and underpass bridge lighting should be maintained and operated by the City under this agreement.

The Traffic Operations Division is responsible management of a maintenance contract to help maintain these lighting systems. Contractors own specialized equipment to reach and access the light fixtures

and have access to an inventory of parts for these repairs that is the City does not currently own. The Division is in the process of converting these roadway lighting systems to LED lights to lower maintenance costs. The LED fixtures will also help save the City money due to lower maintenance and electricity costs.

# **SERVICES LEVEL EXPECTATIONS & MEASURES**

Service	Service Level Commitments
Traffic Control Device Maintenance & Management	See Service Commitments Below
Pavement Markings	Replace 20% of pavement markings every year.
Sign Maintenance	Replace 10% of the approximately 8,000 City owned signs every year.
Traffic Signal Maintenance	Traffic Signal Maintenance: Perform yearly preventive maintenance on all traffic signals in the City to minimize malfunction
Traffic Control Device Maintenance & Management	See Service Commitments Below
CIP Projects	Complete 90% CIP Projects within budget
Traffic Studies	Complete within 60 days
Traffic Signal Analysis	Perform quarterly evaluations along the City's arterials.
ROW Permits	Complete within 2 business days of application.
Street and Roadway Lighting Maintenance	See Service Commitments Below
Street Lighting	Perform quarterly inspections of streetlights

Program: Traffic Engineering		Expected	d Result
Service	Service Level Measure	FY14	FY15
Traffic Control Device Maintenance & Management	Service Level Measures for Activities Below:		
Pavement Markings	Replace 20% of pavement markings every year.  Average service life of each marking is 5 years.	95%	95%
Sign Maintenance	Replace 10% of the approximately 8,000 City owned signs every year. Average service life of each sign is 10 years.	95%	95%
Engineering	Service Level Measures for Activities Below:		
CIP Projects	Complete CIP Projects within budget	85%	85%
Traffic Studies	Complete within 60 days	95%	95%
Traffic Signal Analysis	Perform quarterly evaluations along the City's arterials.	100%	100%
ROW Permits	Complete within 2 business days of application.	95%	95%
Street and Roadway Lighting Maintenance	Service Level Measures for Activities Below:		
Street Lighting	Perform quarterly inspections of streetlights	100%	100%

# **FLEET SERVICES - 1225**

# **PROGRAM SUMMARY**

The Fleet Services division maintains approximately 400 vehicles and pieces of equipment at various service levels. The direct service costs are charged to the user department via the HTE work order system. The garage currently has six service bays and four vehicle lifts, one portable lift system for Fire Apparatus and heavy equipment, and one lift specifically designed for wheel alignment and testing.

Normal business hours are from 7:00 a.m. through 5:00 p.m. Monday through Friday. After hours service is provided seven days per week through an on-call mechanic. The following list of services provided is intended to relate good general knowledge of this division's scope of work. These services are documented by Fleet Services in established policies and procedures. This is a general list of the services provided for the City's vehicles and equipment:

- Preventive maintenance
- State inspections
- Tire repairs/replacement
- Brake work
- Suspension work
- Wheel alignments
- Air conditioning repair and service
- Minor welding
- Installation of auxiliary equipment
- Service fire apparatus
- Service all auxiliary equipment on fire apparatus
- Electrical repairs
- Hydraulic repairs
- Service small/minor equipment
- Lift Station pumps

#### SERVICES AND SERVICE LEVELS

#### **Service: Customer Service**

Fleet Service's primary goal is total customer satisfaction. The division is responsible for the efficient operation of all fleet assets. This service is provided in a friendly, City of Sugar Land effective, and time sensitive manner. Every effort is made to complete repairs as quickly as possible. Delays decrease the effectiveness of departments that provide services to the citizens of Sugar Land. Whenever possible, Fleet Services will provide loaner vehicles to minimize the impact to their operations. A work order system is utilized to track and manage repairs and preventative maintenance of all fleet assets. Customer request for repairs or maintenance services can be made by walk-in, by telephone (ext. 2453 or the garage at 2461), or by e-mail (fleet@sugarlandtx.gov).

Normal business hours are from 7:00 a.m. through 5:00 p.m. Monday through Friday. After hours service is provided seven days a week through an on-call operator. For assistance after hours, employees can call the Public Works main number at 281-275-2450. The answering service will answer all calls and will contact the on-call staff member who will return the call within 30 minutes to obtain information regarding the nature of the emergency service request.

# Service: Preventive Maintenance and Repair

Both repairs and preventative maintenance are prioritized in the interest of public safety and essential City operations. The Division ensures service is performed within manufacturer's requirements and attempts to minimize the number of vehicles returned for duplicate repairs.

<u>Maintenance</u> - Maintain all City-owned vehicles and equipment to the level that provides optimum, reliable usage that extends the life of vehicles and equipment with minimal repair downtime or City of Sugar Land. Provide basic preventative maintenance such as oil and filter changes, chassis lubrication, fluid levels, batteries, brakes and tire pressure within 24 hours. Ensure preventive maintenance as well as State Inspections are completed on all fleet assets as scheduled by working with departments to schedule the services. Ensure dealerships perform required service per manufacturer's warranties and ensure minimum downtime for the fleet assets.

<u>Repairs</u> - The Division also provides minor repairs in-house such as replacement of water pumps, gaskets, fuel pumps, tires and brakes as well as major repairs including engine overhauls and rebuilding of transmissions. Outside vendors are used to provide services for body work, motorcycle repair, large tire installation, and painting of vehicles or equipment.

# Service: Fleet Life Cycle

<u>Inventory & Assessment</u> – The Fleet Services division maintains an inventory of all fleet assets. This inventory is visually assessed annually to ensure reliable and safe operation of all assets. The condition of assets during this assessment is used to determine a list of assets that need replacement consideration.

<u>Acquisition</u> – All purchases of fleet assets begin in Fleet Services. The division works with other departments to provide the equipment they need while ensuring the purchase is City of Sugar Land effective and able to be maintained internally.

<u>Replacement</u> - Evaluate and recommend replacement of appropriate fleet assets with the goal of achieving adequate useful life while maintaining operational reliability. Using a comprehensive check system based on specific criteria, determine which fleet assets should be replaced in given fiscal year. Install all aftermarket equipment including, but not limited to radios, emergency lighting, and decals. The replacement of assets is performed in accordance with existing policies and procedures.

<u>Disposal</u> - As assets reach the end of their life cycle, dispose of all assets in accordance with City policy and state laws. Equipment installed on an asset that can be repurposed is removed and reassigned. The assets have their decals removed and receive a thorough cleaning before being approved for disposal through the proper methods.

Repair and Maintenance City of Sugar Land - Manage the City of Sugar Land associated with the maintenance of fleet assets. As the fleet ages and replacement guidelines are extended, maintenance City of Sugar Land will increase. As the fleet median age increases, the value decreases resulting in higher maintenance for the City of Sugar Land. Managing the extra maintenance for the City of Sugar Land compared to the City of Sugar Land associated with cycling assets sooner is the responsibility of Fleet Services.

<u>Manufacturer Warranty</u> - Manufacturer warranties are utilized for covered repairs during an assets initial warranty period.

#### **Service: Fuel Management**

Manage the consumption of fuel and opportunities in alternative fuel vehicles.

The Division provides unleaded and diesel fuel to the City's fleet and reports the charges for fuel by department to Accounting weekly. The Division also ensures proper operation of fuel equipment, provides for proper tracking and charging of fuel inventory to departments, ensures sufficient fuel levels at all times, and arranges for emergency fuel supply in case of natural or man-made disaster response needs.

Exploring opportunities in alternative fuels is one way the City is engaged in reducing our diesel and unleaded consumption. There are currently five hybrid vehicles, 4 bio-diesel trucks, and one CNG (Compressed Natural Gas) ½ ton truck in the fleet.

Fleet Services also has a policy to reduce idling in effect and proactively maintains vehicles in an effort to reduce fuel consumption in every way possible. Although the fuel management system is outdated and limited in functionality, every effort is made to minimize fuel loss and consumption.

# **Service: Regulatory Compliance**

<u>Fuel Storage</u> - Manage the regulatory compliance of all fuel storage tanks. The Fleet Services Division is responsible for the inspection and maintenance of eight fuel storage tanks at three difference facilities. All daily, weekly, and monthly inspections are performed in house by five certified employees. Annual line and tank leak detection tests are performed by a qualified third-party.

<u>State Inspection</u> - Manage the compliance of state safety and emissions inspections. Fleet Services is a state licensed state inspection station solely for City assets. Fleet Services must maintain the same licenses, training, credentials, equipment, and documentation as a commercial inspection station.

# Service: Fuel & Parts Inventory

<u>Fuel Inventory</u> – Every quarter, Fleet Services, working with the Accounting Department, reconciles our physical fuel inventory. Every gallon that was delivered is audited. Pumped gallons that are billed back to the individual department using the fuel are accounted for. Accounting for volume variations due to temperature changes along with an outdated fuel system are the largest obstacles in accuracy.

<u>Parts Inventory</u> – The Fleet Services Division maintains a fluid, parts, and tire inventory valued at approximately \$150,000. Inventory counts are conducted monthly to ensure parts issued during the month are charged back to the appropriate department. Annually, the Accounting department audits this information for accuracy. Historically, wiper blades and light bulbs are the items that are unaccounted for due to "drop in" repair requests that do not result in the issuance of a work order.

#### SERVICE LEVEL EXPECTATIONS

Service	Service Level Commitments
Customer Service	Initiate work order requests within one workday of receipt
Preventative Maintenance	Ensure each asset receives preventative maintenance service per manufacturer recommendations and proactive repairs are completed. Failures are repaired as quickly as possible
Fleet Life Cycle	Manage the inventory, acquisition, disposal, and annual replacement of fleet assets. Manage costs associated with these services
Fleet Life Cycle	Life to date repair costs remain less than 40% of the cost of the asset.
Fuel Management	Maintain cost effective fuel delivery. Monitor fuel usage monthly to identify a greater than 10% volume usage
Regulatory Compliance	Maintain 100% compliance with state and federal regulations
Fuel & Parts Inventory	Maintain an accurate inventory. Reduce opportunities for shrinkage. Variance of less than 3% based on issuance of items

#### **FACILITIES MANAGEMENT - 1230**

#### **PROGRAM SUMMARY**

The Facilities Management Division is responsible for providing a physical environment, in the form of fully functional public buildings and grounds that enhance the City of Sugar Land's overall ability to deliver services to its Citizens. Our mission is to ensure that all City of Sugar Land facilities and equipment are well designed, constructed, and maintained, resulting in a prolonged useful life with maximum longevity and minimum asset deterioration. The Division manages Facility Capital Improvements, Build-outs and Renovations, Ongoing Operations and Preventive Maintenance, General Repair and Remedial Maintenance, Facility Access, and Special Projects. This Division maintains approximately 60 city facilities and sites that cover 575,774 square feet and are located throughout the City of Sugar Land. Services provided include a vast array of functions and services.

The Division performs routine inspections of facilities and systems including structural, mechanical, electrical, plumbing, security and life safety, and lighting. The Division places importance on preventative maintenance techniques that contribute to systems operating efficiently and help to prolong a system's useful life.

#### SERVICES AND SERVICE LEVELS

#### Service: Customer Service

The customers of the Facilities Management Division include all fellow employees in other Departments, as well as, the citizens of the City of Sugar Land. We place great importance on the support we provide to our fellow employees, who in turn provide vital direct support services to our citizens. These services enable other operating Departments to work within well maintained facilities that enhance the delivery of services.

Direct support of our citizens is also provided through the maintenance and repair activities we provide for our many Public Use Facilities. Through these efforts, we provide quality, well-maintained public facilities that support the quality of life for our citizens. These facilities include our City Hall, Recreation Centers, Fire Stations, Police/Courts, Animal Shelter, Airport and Public Works Facilities.

# Our goal is to: Pursue and Achieve Customer Satisfaction by Always Being Responsive and Following Through on Customer Requests

#### **Responding to our Customer Needs**

In addition to proactive measures in addressing the maintenance needs of our Facilities through routine building inspections and preventive maintenance, we also address customer needs directly, by processing work requests through our Work Order Hot Line. Customers request repairs and maintenance service by calling the work order phone line or by emailing facilities@sugarlandtx.gov. A work order is entered in the HEAT system and work order responses are categorized for priority. The requestor receives a confirmation email when work order is opened and one with a link for a customer service survey, once the work order is closed.

**Activity: Work Orders** 

Per policy, the Facilities Management Division responds to all requests in a prioritized manner: Work Order Process

Customers initiate work requests by calling our Work Order Hotline directly, at 281 275-2150, or emailing facilities@sugarlandtx.gov, Monday – Thursday, from 7:00 AM – 5:00 PM, Friday from 8:00 AM-5:00 PM/ Information is taken over the phone or via email by our Senior Secretary and entered into the HEAT Work Order System. The Senior Secretary will take all pertinent information regarding the request and process the request according to priority.

All Work Requests are responded to according to the level of priority assigned to the request. Upon completion of inputting a WORK ORDER, and assigning a priority, the requestor receives a work order confirmation via email.

### **ACTIVITY: ON CALL / AFTER HOUR RESPONSE**

Normal Business Hours are from 7:00 a.m. through 5:00 p.m. Monday through Thursday, and 8:00 a.m. through 5:00 p.m. on Friday.

After hour service is provided, 24 hours per day, through an on-call operator, to ensure that a Maintenance Technician is available at all times to respond to facility emergencies and maintenance calls. For assistance after hours, please call the main Public Works phone number at 281-275-2150. The answering service will answer your call and will contact the on-call Facilities Division Technician. As per Facilities Division Policy, the on-call Facilities Staff Member will then return the call within 15 minutes to obtain information regarding the nature of the service request.

The Facilities Division uses a rotating system and a new on-call assignment is made each week. During on-call duty, the Technician is assigned an on-call cell phone and is the first Facilities Staff who will be contacted for any facilities related problem.

# **Service: Facility Planning**

The City of Sugar Land is rapidly growing and it is essential that our Public Facilities keep up with the rising demand for city services. The Facilities Division provides Project Development Support for operating departments involved in the addition of new facilities, and the expansion and renovation of existing facilities. We assist departments with facility planning and programming necessary to meet their current and future space needs and objectives. We also work with our Departments and Consultants throughout the design and construction process to ensure all facility improvements meet city standards.

#### Service: Remedial Maintenance

The Facilities Division provides comprehensive facility repair and support services for all facilities. This responsibility requires that we respond promptly to all potential problems, which could interrupt the delivery of critical services to our citizens. Repairs are provided to structural, mechanical, electrical and plumbing facility components and equipment to sustain operations. Remedial Maintenance consists of one time, non-scheduled repairs that require reactive corrective measures. Reacting to and repairing building systems and equipment, after it fails, is inefficient and expensive and threatens service delivery.

Responding to facility failures uses valuable resources that could be used more efficiently to provide routine maintenance thus preventing emergencies. Inadequate funding for preventive maintenance results in a higher overall cost for facility maintenance, as the cost of remedial maintenance increases. We strive to cost of Sugar Land of repairs.

Repair services are provided by in-house Facility Technicians and Private Service Contractors under the direction of Facilities Management Personnel.

## **Service: Preventative Maintenance**

A successful Facility Operations and Maintenance Program require proactive routine inspections and preventive maintenance for facilities and equipment. Facilities Operations and Maintenance Staff perform monthly facility inspections including; structural, mechanical, electrical, plumbing, HVAC Equipment and Controls, Building Access, Security Cameras, Life Safety Systems, Custodial Services, and Landscape Services. Our key facilities are equipped with Building Automation Systems, from Open Tech Controls. This is an important proactive maintenance tool that is used daily by our HVAC Techs, to check temperatures in our buildings and respond, when they are out of range, before they become an issue for our customers. The Division places a high priority on the performance of routine preventative maintenance that supports efficient facility operation and extends the useful life of facilities and operating systems. Deficiencies that are noted during our inspections are responded to by our In-House Staff or Service Contractors.

During FY 12 a comprehensive Facilities Condition Assessment Report was completed by Huitt-Zollars, a Consultant for the City of Sugar Land. The overall results of the survey indicated that City of Sugar Land Facilities were in excellent condition. The report provided us with a list of facility deficiencies that need to be corrected. The Facilities Division is using this list as a guide to prioritizing our Facility Maintenance Program. .

# **Service: Facility Renovations**

The Facilities Division's goal is to plan and develop effective Capital Improvement Projects and minor In-House Renovation Projects that meet the needs for the City of Sugar Land. Our Division is responsible for guiding and monitoring all of these projects from design to completion, assuring that quality, budget, and completion, targets are met. Technical assistance for redesigning existing work space and providing recommendations for equipment and furnishings is provided by our Division. We are responsible for comprehensive planning, design, and construction services for facility rehabilitation and renovation projects. These projects include the Capital Improvement Program Projects, as well as those funded by other departments through their operating budgets. Our Division is also responsible for managing and coordinating the allocation of space as per departmental needs and established facility standards. All of the above is accomplished by first meeting with the operating department, to gain an understanding of their program needs and then developing a scope of work for the project. Prior to submitting a formal Budget Request for the project, the Facilities Division will assist the Operating Department with developing a budget for the project and determining the appropriate funding source.

# **Service: Contract Management**

The Facilities Division manages numerous contracts for services that are provided by Private Sector Service Contractors. These contracts are very important and support essential services for the maintenance and upkeep of our Facilities and Grounds throughout the City of Sugar Land. Although these services are not provided directly by Facilities Division Employees, they are monitored to ensure that the services provided meet City of Sugar Land standards, as set forth in the contracts. Meetings are held between Facilities Division Management Staff and Representatives from the various Services Contractors, on a routine basis, to maintain an open and strong line of communications. When problems with contact services are encountered, the Contractor is immediately notified so that corrective action will be taken. All service related issues are documented and followed up on by Facilities Division Management.

#### **Facility Support Contacts:**

Janitorial Service Landscaping Service **HVAC Service** Access System & Security Camera Service Fire Alarm Service & Monitoring Fire Extinguisher Service **Electrical Service Plumbing Service Elevator Service Emergency Generator Service** Fire Sprinkler System Service **Backflow Preventer Service & Testing** Overhead Door Service Pest Control **Moving Services** Plant Maintenance **Uniform Rental** 

#### **Service: Mail Services**

The Facilities Division is responsible for the daily pick-up and delivery of Business Mail for all City of Sugar Land Facilities. This service includes pick-up and delivery of inter-office mail and post office mail. The Division's Courier Service provides pick-up and delivery of daily cash receipts from all City of Sugar Land Departments to the Treasury Office. Daily tasks performed by the Courier Service include traveling to and from City Hall, and Fire Stations #1-#7, Police/Municipal Courts, Airport, Parks and Recreation, Public Works and Animal Services Facilities. Tasks also include: sorting all mail, posting outgoing mail, preparing certified and insured mail receipts. Coordination of daily activities to provide for special pickup and delivery of mail as required, meeting the needs of all City Departments. Courier Services also manages the transportation of archival material.

# SERVICE LEVEL EXPECTATIONS

Service	Service Level Commitments
Customer Service	Maintain a rating of 95 or higher on quarterly customer service surveys
Work Orders	Respond to requests for service within the allocated response time per prioritized level
Work Orders	Priority 1 – 30 minute response / 24 hour completion
Work Orders	Priority 2 – 24 hour response / 48 hour completion
Work Orders	Priority 3 – 48 hour response / 5 day completion
Facility Planning	Maintain annual Facility Assessment to document facility needs
Facility Planning	Manage CIP for Facility Improvements to meet the needs of our growing community
Remedial Maintenance	Respond and perform Remedial Maintenance as required by Work Order System and Priority Level #1, #2, #3 designation
Preventative Maintenance	Comprehensive Building Inspections are performed monthly to identify needs and perform maintenance prior to failure and outages of building components and equipment
Preventative Maintenance	Monthly Inspections and Preventive Maintenance Includes: HVAC, Electrical, Plumbing, Structural, Appliances, Janitorial, Landscape
Facility Renovations	Our goal is to provide 100% of building renovations that meet the needs of our facility occupants, and Community, and are completed on time and within budget
Contract Management	Manage 100% of our Facility Service Contracts, by achieving quality and continuous services, within budget
Courier Services	Maintain a rating of 95 or higher on Quarterly Mail Customer Service Survey

# **WATER QUALITY - 5016**

#### **PROGRAM SUMMARY**

The Water Quality Division is responsible for regulatory monitoring and reporting to meet TCEQ and EPA requirements according to the Safe Drinking Water and Clean Water Acts for the City of Sugar Land's two public water systems. The Division helps assure the safety and quality of the drinking water by monitoring all chemical applications and treated water quality and is responsible for numerous local, state and federally mandated programs.

# **SERVICES AND SERVICE LEVELS**

#### **Service: Water Quality Assurance**

Objective is to maintain 100% compliance with TCEQ/EPA monitoring required by the Safe Drinking Water Act (SDWA). This includes sampling and testing of raw and finished water at established monitoring locations.

Monitoring for SDWA Contaminants: Staff accompanies TCEQ contractors as they sample all stages of the drinking water process. These samples are analyzed by the TCEQ contracted lab and results are reviewed to assure that primary and secondary maximum contaminant levels are met. This includes metals, salts, herbicides and pesticides, radioactive chemicals, and disinfection byproducts. Special sampling is conducted periodically for emerging contaminants through the Unregulated Contaminant Monitoring Rule. Raw water is sampled as required to obtain baseline data for surface water treatment. A large part of this program includes daily sampling for total coliform bacteria in the distribution system.

Corrosion Prevention Program: The Division conducts distribution sampling and analysis, at minimum, once per week for water treatment chemicals and chemical parameters that can affect corrosion. This includes ortho-phosphate, which is added as a corrosion inhibitor. Staff manages the EPA mandated Lead and Copper program which requires testing and reporting of water chemistry in the distribution system and at customer's internal private fixtures. Lead and copper have action levels that when exceeded indicate that the method used to inhibit corrosion is not adequate. Lead and copper monitoring is a major Division effort which includes finding residences with appropriate plumbing fixtures and recruiting the residents to volunteer to sample first- draw from their internal faucets. This is a mandate for both water systems with a minimum of 50 sampling locations.

<u>Distribution Monitoring and Protection:</u> The Division performs weekly field testing in the distribution system and monthly testing at the plants to assure that chemicals levels are within established ranges. Water chemistry and microbiological results are used to optimize chemical feed rates and assess the need for perform distribution system maintenance. The annual backflow testing program is established to assure that health hazards associated with private plumbing do not affect water quality in the drinking water system. Water Quality personnel enforce the annual testing requirement with property owners on a continual basis.

<u>Instrument Calibration:</u> The Division provides verification that instruments used to adjust water treatment chemical feed are accurate. The calibration of the field test kits and benchtop equipment is checked according to the frequency established in the drinking water regulations using certified standards.

<u>Customer Inquiries:</u> The Division also supports Customer Service in providing testing at residences for atypical water quality complaints. Additionally, staff answers customer inquiries about water quality and provides the data for the annual Water Quality Report also known as "Consumer Confidence Report" (CCR).

<u>Chloramine Conversion Process</u>: Additional monitoring is required when chloramines are used to maintain a disinfectant residual in the distribution system. It is necessary to test not only for chloramine concentration, but also for breakdown products in the distribution system. Twelve locations are monitored weekly in addition to daily monitoring at the total coliform sites.

## **Activity: Backflow Prevention**

Per year, the Division is responsible for monitoring approximately 1,475 backflow devices that protect the distribution system from high health hazard backflow. Additionally, the Division tracks backflow device testing, performs investigations and executes enforcement activities to promote compliance. Backflow contamination from high health hazard facilities (industrial, heavy commercial) could pose health risks to the public and the infrastructure if not monitored properly.

## **Activity: Bacteriological Distribution Sampling**

The Division is responsible for collecting a minimum of 94 coliform bacteria samples per month and daily chlorine residuals for two public water systems per TCEQ requirements. Bacteriological monitoring requirements are driven by population served for each system and therefore a different minimum number of monthly samples are applicable. Samples are collected Monday-Thursday for coliforms and disinfectant residual is run in the field at each site. The contract lab must receive and run the samples for total and fecal coliforms within a short hold time. Friday-Sunday and on holidays, sites on the Monitoring Plans are checked for chlorine residuals. All sites must have a minimum free chlorine level of 0.5 mg/L on any given day. Repeat total coliform positives or any fecal coliform positives can result in mandatory Public Notice to include a "boil water" notice to customers and fines by TCEQ.

Approximately 10 construction samples are collected each month for total coliform analysis. This analysis is necessary for putting water mains and repaired sections of existing mains on line.

# **Service: Grease Trap Inspections**

The purpose of this program is to provide assurance that grease traps are maintained so that grease, oil, grit, and lint discharged by facilities are removed prior to entry into the public wastewater system. Over time excessive fats, oils, grease, and particulate can create stoppages in the collection system leading to sanitary sewer overflows (SSOs), increased potential for odor problems in the collection system, or pass

through at the treatment plants. Dischargers include food service establishments, industries, auto repair shops, commercial laundries, car washes, schools, and hotels. Annual inspections on 378 active traps are performed at a minimum frequency required by the City's SSO reduction agreement with TCEQ. Higher risk grease traps (based on history) are inspected more frequently. If an establishment does not maintain a grease trap the responsible party may be charged for additional follow up inspections, subject to increased inspection frequency, fined, or in extreme cases water service may be discontinued until the establishment returns to compliant status.

## **Service: Industrial Pretreatment Program**

Wastewater Quality Sampling/Pretreatment Program: The Industrial Pretreatment Program (IPP) was established by federal regulations requiring local governments like Sugar Land to regulate the wastewater discharge from industrial users by City Ordinance; the City effectively becomes the regulator for the permit holders. The IPP includes monitoring and enforcing federal pollutant discharge limits by industrial category and establishing, monitoring, and enforcing local discharge limits. The IPP is complex and demanding and the State mandates that the City have dedicated resources to accomplish the following tasks. Staff must create and enforce permits for significant and categorical industrial users (SIUs & CIUs)) identified based on the potential to exceed federal or local limits or have the potential to negatively impact any part of the system. The permits include pollutant limits for various discharge points, self-monitoring and reporting frequencies, requirements for certifications of continuing compliance, slug discharge control plans, and waivers granted in accordance with applicable regulations – all requiring day to day staff oversight, correspondence, and enforcement.

The City must routinely update local limits periodically, which is done via a detailed 7 day 24 hour mathematical characterization of the wastewater pollutant loading of the treatment plants and in the collection system. Each new business must be evaluated for inclusion in the program as SIUs on an ongoing basis and a comprehensive city-wide Industrial User Survey must be conducted every three years to further assure that all businesses are permitted appropriately). Staff must also monitor discharge compliance semi-annually by collecting 24 hour samples at each SIU and by performing an annual site inspection. Wastewater influent and effluent is sampled at a defined frequency by pollutant and staff must review these results for compliance. Results of all activities and major changes must be reported to TCEQ for approval and for their evaluation of the need for a major program update.

In addition non-compliant SIUs are reported annually via public notice in local media. The Program currently includes 5 SIUs and 12 CIUs in the permitting process. Participants are monitored semi-annually for discharge compliance with permits.

<u>Commercial Facility Inspection:</u> Inspection of approximately 80 heavy commercial and industrial establishments annually for wet process verification, chemical storage, waste disposal, cross contamination, and make written recommendations. Enforcement and follow-up as needed. Coordinate file management of inspection records and respond to environmental site assessment request.

Service	Service Level Commitments
Water Quality Assurance	Maintain 100% compliance with all state and federal monitoring guidelines required by the TCEQ and the EPA.
Water Quality Assurance	Ensure Bacteriological Distribution Sampling occurs on schedule to comply with State regulations and promote health and safety
Grease Trap Inspections	Conduct 150 follow up inspections on Backflow units that either fail test or are not tested. Conduct data entries for all 100 inspections.
Grease Trap Inspections	Conduct 378 Grease Trap inspections and make all related data entries
Grease Trap Inspections	Provide assistance to the costumers whenever it is needed
Industrial Pretreatment Program	Conduct two rounds of water sampling events for the industrial users
Industrial Pretreatment Program	Conduct quarterly review of test results from City Sampling and issue Notices of violation when and where necessary
Industrial Pretreatment Program	Work with the industries to ensure that they operate within the City's permitted limits
Industrial Pretreatment Program	Assist the industries meet environmental standards and at the same time meet their business needs
Industrial Pretreatment Program	Provide good customer service to our clients by responding to their requests and assisting them to achieve compliance
Industrial Pretreatment Program	Inspect all industrial users that engage in wet or water related processes
Industrial Pretreatment Program	A minimum of 40 inspections shall be conducted annually

## **STORMWATER - 1431**

#### **PROGRAM SUMMARY**

The Storm Water Management Division is responsible for developing and implementing the City of Sugar Land's Storm Water Management Program as required by the Environmental Protection Agency (EPA) and the Texas Pollutant Discharge Elimination System (TPDES) permit issued by the Texas Commission on Environmental Quality (TCEQ). The Division seeks to reduce the discharge of pollutants to the maximum extent practicable, protect water quality and satisfy all requirements of the federal Clean Water Act.

The Division develops and implements the City's Storm Water Management Plan (SWMP) that is adopted by Council and approved by TCEQ. In this role, the Division is responsible for ensuring compliance with all state and federal laws. The SWMP is a comprehensive approach that includes education outreach, illicit discharge detection, inspections for construction site run-off and illicit discharges, spill response, and City facility good housekeeping The Division enforces the City's storm water ordinance which prohibits illicit discharges entering into the City's storm drainage system. Division staff responds to complaints and reports of illegal dumping, spills, and construction site violations.

The program operates to meet the City's priorities of Responsible City Government. As new ideas and methods for reducing or eliminating storm water runoff pollution are discovered incorporated into the program and as federal and state laws are enacted that affect the program.

#### SERVICES AND SERVICE LEVELS

#### Service: TPDES Implementation

<u>Texas Pollutant Discharge Elimination System Phase II:</u> The TPDES Phase II program requires the development and implementation of a comprehensive Storm Water Management Program (SWMP).

The program concentrates on five areas that are essential to achieving the program goals.

- 1. Public Education, Outreach, and Involvement
- 2. Illicit Discharge Detection and Elimination (IDDE)
- 3. Construction Site Storm Water Runoff Control
- 4. Post-Construction Storm Water Management in New Development and Re-development
- 5. Pollution Prevention and Good Housekeeping for Municipal Operations

On May 6, 2014, the Sugar Land City Council adopted the City's draft Storm Water Management Program (SWMP) for submittal to the Texas Commission on Environmental Quality (TCEQ) for approval and implementation. The new permit term requires full implementation of the SWMP's five minimum control measures, as well as annual reports submitted to TCEQ each year to track the development process.

<u>Environmental Assistance</u>: The Storm Water Program works with various City Departments as well as with City Council, outside regulatory agencies and environmental groups. This is to ensure that the TPDES Permit mandates are met in a timely and efficient manner. The Environmental Services Division provides expertise on storm water issues within the City and responds to the City's environmental needs. This assistance may take many forms, including but not limited to: responding to spills and water quality calls.

<u>Upper Oyster Creek TMDL Stakeholder Coordination:</u> Staff works with the TCEQ and the Houston-Galveston Area Council (H-GAC) to coordinate stakeholder meetings and provide feedback for the Upper Oyster Creek TMDL Implementation Plan process.

# Activity: Public Education, Outreach, and Involvement

Public education is a key component to the success of the City's SWMP. In order to prevent pollution within our waterways and educate residents on the effects their actions may have on the environment, the City of Sugar Land has developed a variety of educational materials and has obtained numerous educational resources from the TCEQ, EPA, H-GAC, and other MS4 communities throughout the United States.

The City of Sugar Land's outreach program informs the public about the impacts that storm water runoff can have on water quality, hazards associated with illegal discharges and improper disposal of waste, and steps that can be taken to reduce pollutants in storm water run-off.

The City of Sugar Land's Storm Water Division, in coordination with KSLB, currently institutes a variety of public involvement and participation programs to educate and inform the community of the effects their actions have on the environment.

## **Activity: Illicit Discharges**

The City's IDDE program is intended to detect and eliminate discharges to the MS4 system that are not entirely composed of storm water. An ordinance has been developed and adopted that prohibits illicit discharge and connections, all non-storm water discharges that significantly contribute pollutants to the MS4, and illegal dumping.

### CONSTRUCTION SITE INSPECTION PROGRAM

The City of Sugar Land's Construction Site Inspection and Enforcement Program, was implemented to reduce pollutants in storm water runoff to the MS4, as mandated through the State permit. City staff performs construction site inspections on municipal and non-municipal construction activities throughout the City. All construction site inspections are performed in accordance with the developed procedures, and enforcement proceedings are administered in accordance with the adopted construction site runoff control ordinance.

Service	Service Level Commitments
TPDES Implementation	Educate the public on the effects that other items going into the storm drain have on the environment
TPDES Implementation	Sponsor at least one water quality educational material to local schools within the community

## **ANIMAL SERVICES - 1456**

### **PROGRAM SUMMARY**

The Animal Services Division protects public health and welfare by enforcing humane animal treatment in accordance with City of Sugar Land's ordinances, county, state and federal regulations. The Division provides safe, humane shelter for unwanted, stray, abused and impounded animals, as well as, educates the public about responsible animal care, pet ownership and living with wildlife.

Animal Services Staff is on call and available 24 hours a day. The Animal Shelter is open to the public 8:00 am to 5:00 pm Monday thru Friday, Thursday until 7:00 p.m. and Saturdays 10:00 a.m. to 2:00 p.m. The staff provides essential needs for the animals on Saturday and Sunday mornings. During normal business hours, animal service officers maybe dispatched from the Animal Shelter. Any afterhours dispatch is received from the City's Police Department Dispatch.

An Animal Services Advisory Board helps provide direction to the Division. The Board consists of five members, two of which are staff. This Board meets at least 3 times per year and is mandated by the State of Texas.

### SERVICES AND SERVICE LEVELS

# Service: Shelter & Field Operations

The Division manages and operates the City's Animal Shelter to ensure the safety of the animals under the custody of the City. Shelter operations include animal impoundment, adoptions, volunteer assistance, cleaning and feeding, veterinary services, lost and found, outreach, education, and customer service.

This Division is also responsible for removal of dead animals from both public and private property excluding major highways, which is the responsibility of Tx DOT. All deceased animals are transported back to shelter. Domestic animals are photographed for identification, and the lost reports are checked for matches. For animals wearing tags, staff immediately contacts the owners. All deceased animals are stored in a freezer until cremated. The City contracts with a crematory for this service.

Animal Services also acts as the rabies authority for the City. The Division is tasked with preventing the spread of the rabies virus in Sugar Land. In most cases, this is done by investigating animal bites thoroughly. Vaccinations are verified on all animals, and an appropriate quarantine period is established following an incident. The quarantine can be at home or at a veterinary clinic depending on the circumstances. Witness statements and photos are secured. Animals may be sent to the rabies lab for testing. Quarantine periods range from 10 to 90 days depending on the case.

The Division is also responsible for enforcement animal ordinances relating to both domesticated and wild animals. Animal Service Officers are on call 24 hours a day to resolve these types of issues.

## **Activity: Animal Adoptions and Impoundment**

All impounded animals are assigned an incident number and put in an isolation area. The animal stays in isolation for 72 hours, if it has no form of identification (tag, tattoo, or microchip) and 120 hours if it does have identification.

During this time the animal is made comfortable, provided veterinary care if needed and maintained through its holding period. All attempts are made to find the owners calling on tags, microchips and tattoos, calling local veterinary clinics, driving neighborhood for signs, checking with other agencies, checking Craig's list, Petfinder, fidofinder, tabby tracker and pets911 websites. If an owner can be found, the dog or cat may be reclaimed with proof of rabies vaccination, a driver's license and payment of impound fees. If no owner can be found, the animal must pass a behavior and health evaluation to move to adoption.

Lost and Found reports are taken over the phone or via e-mail. They are checked with reports on file and with animals that are currently at the shelter. The staff takes steps to educate owners on what they do to find their missing pets and other area shelters they can check. The staff monitors webpages and postings to help reunite lost pets with owners.

It typically takes three hours every morning to clean all animals being housed in the shelter. The animals are spot checked throughout the day and then they are fed and cleaned again in the afternoon – almost 5 hours of cleaning per day.

Veterinary Services are contracted on a regular basis for animals in the shelter's care. The Veterinarian comes every Wednesday to do rounds at the shelter, administer rabies vaccines and euthanasia services when needed. Recommended treatments and medications to the animals are recorded. Additionally, the Veterinarian conducts the shelter's yearly inspection, a report required by state law that must be filed with the Department of State Health Services. The staff is responsible for veterinary care in between veterinary visit. In emergency situations, an animal may also be transported to a veterinarian.

Dogs moving from impound to adoption go through a thirty-minute evaluation process that tests their level of socialization, prey drive and aggression. All dogs are also tested for heartworms. When a dog tests positive for heartworms, moderate and severe cases are x-rayed to check for damage caused by the heartworms and only candidates for treatment are moved to adoption. Once moved to adoption they are given all vaccinations, heartworm preventative, checked for intestinal parasites and given flea treatment. Once moved to adoption, they are also eligible to be walked by volunteers and are fitted with a harness.

Cats are tested for Feline Leukemia and negative cats are moved to adoption. Once moved to adoption, they are given all vaccinations, checked for intestinal parasites and given flea treatment. Once moved to adoption, they are also eligible to be handled by volunteers.

Prospective adopters can visit with animals in one of our playrooms, bring a pet from home to see if their pet and the prospective new one will get along, fill out paperwork for a sleepover or fill out adoption paperwork. All animals leave with vaccinations (if old enough), microchip and spaying and neutering (if old enough). Adoptable pets are also posted on website such as Petfinder and fidofinder

# **Activity: Volunteer Program**

Our volunteers play a supportive role in our organization. The volunteers want to work with the animals, which is a big help to the staff. Some of the jobs they do include, cleaning, answering the phone, dog bathing, cat grooming and playing, pet picture taking and dog walking. This helps to give the animals a break from their cages, be exposed to new faces and get some exercise and socialization.

## **Activity: Outreach and Education**

The Animal Services Division strives to educate the community about animal issues and responsible pet ownership. Outreach and education is done on the phone when citizens call, on the street when on service calls, in the shelter when individuals or groups visit, at special events, on our webpage and any other appropriate medium. Animal Services responds to requests to provide outreach and education at schools, service clubs, special events, and for individuals and groups to come into the shelter for tours.

## **Activity: Customer Service**

Our Division has a lot of customer contact whether it be greeting guests when they walk in to the shelter, taking complaints, answering questions, listening to concerns, handing out necessary information (volunteering, low cost spay/neuter, surrenders, etc.), directing them to adoptable cats and/or dogs, helping with adoption/sleepover/impound paperwork, taking trap requests or taking messages for officers. Our Division also receives several e-mails that need to be responded to and information that needs to be sent out. We also receive several phone calls a day from residents and dispatch calls to the officers in the field from the shelter.

Service	Service Level Commitments
Animal Services	Respond to calls within 24 hours
Animal Services	Meet or exceed divisional goal for adoptions

# **SOLID WASTE/ENVIRONMENTAL - 5010**

### **PROGRAM SUMMARY**

The Division is responsible for daily residential solid waste management, contract negotiations, customer service, and education. The Division also manages the commercial solid waste program and solid waste for City facilities. Other services provided by the Division include managing nearly all environmentally related City programs and initiatives such as education, KSLB contract, public events, sustainability, and environmental regulations. The Division is also responsible for debris management side of emergency management, clean-up after a natural disaster.

### SERVICES AND SERVICE LEVELS

# Service: Program Management

The Solid Waste Division represents the City on all non-utilities related environmental rules, mandates, and programs. These services include the following: Monitoring regulation changes, educating management of future requirements, implementing projects/programs to meet requirements, and providing public education.

The Solid Waste Division manages the following contracts: solid waste contract, debris management contract, on-call HAZMAT response contract, the Keep Sugar Land Beautiful contract and two contracts for tire and cooking oil recycling. The Division is responsible for the initiation, process, monitoring, and completion of contracts or agreements.

# Service: Recycling Program

The Solid Waste Division manages the City's solid waste contract, which includes recycling for residential, commercial and City Facilities, and tire and cooking oil recycling. The Division monitors the solid waste contractor to ensure the appropriate service levels are provided and contractual obligations are met. Residential areas, commercial properties and City facilities are also monitored to ensure proper guidelines are followed.

A drop-off site for used cooking oil and tires is located at the Public Works campus. This is an additional resource to our community for items that cannot be recycled via the curbside recycling program.

## Service: Solid Waste

The Solid Waste Division manages the City's Solid waste contract to ensure the appropriate service levels are provided and contractual obligations are met. Residential areas, commercial properties and City facilities are also monitored to ensure proper guidelines are followed. The Division also monitors community needs and national trends to initiate best practices and implement service level changes.

The Solid Waste Division is responsible for ensuring compliance with the City Ordinances and other local, state and federal regulations pertaining to solid waste. The Division proactively monitors the City for ordinance violations and illegal activity. The goal is voluntary compliance but if needed the Division will initiate the prosecution of violators.

#### Other Services

The Division also manages a licensing and fee based program that is required of any company that provides solid waste services to temporary construction and demolition projects and recycling services in Sugar Land. The Division performs yearly audits, monitors licensing of companies, quarterly invoicing, record keeping, complaint investigation and response, and enforcement of City Ordinances. The Division also monitors community needs and national trends to initiate service changes and implement service level changes.

The Solid Waste Division is in charge of coordinating the development and management of contractual agreements for debris management in the event of a natural disaster. After a disaster occurs the Division is responsible for all aspects of debris removal services.

Preparedness includes but is not limited the following:

- Monitor FEMA regulation changes
- Provide internal and external education
- Contract development and management
- Regional coordination (Fort Bend County, HGAC)

Response includes but is not limited the following:

- Activate contracts
- Interaction with FEMA, FHWA, TCEQ, Contractors, etc.
- Assess debris
- Develop clean-up plan
- Provide internal and external education
- Manage and monitor collections: Service issues and Debris site

The Solid Waste Division is in charge of coordinating the development and management of contractual agreements for HAZMAT response in the event of a hazardous waste incident where the City is at fault or the responsible party cannot be located.

Preparedness includes but is not limited the following:

- Provide internal education
- Contract development and management

Response includes but is not limited the following:

- Activate contract
- Manage and monitor mitigation
- Interaction with Fire, Police, TCEQ, Contractors, etc.
- Provide internal and external education as needed

Public education plays a major role in the Solid Waste and Recycling program. The Division provides public education and outreach for a variety of topics including but not limited to: solid waste program guidelines, importance of recycling, solid waste minimization, household hazardous waste, air quality, and energy efficiency. The Division coordinates environmental outreach programs and special events with Keep Sugar Land Beautiful (KSLB) through a services contract.

#### **Customer Service**

While the Residential Solid Waste contractor receives most calls, residents may also call Sugar Land Public Works to inquire about their Solid Waste and Recycling service or to report an issue. Calls are answered 24 hours a day, 7 days a week by a live person. Customer services issues and complaints are investigated immediately and typically resolved within 24 hours.

# Service: Earth Day Event

The Solid Waste Division organizes the annual Earth Day Celebration event in partnership with Keep Sugar Land Beautiful. The education event includes a recycling collection event for paper shredding. The Division manages all aspects of the event including planning, event activities, and event data tracking. The Division assures that every avenue possible is taken to notify residents of the events and provide them with quality services at the event.

Service	Service Level Commitments
Solid Waste /Environmental	See Service Commitments Below
Program Management	Ensure all local, state, and federal regulations are followed by staff and contracted personnel
Recycling Program	Ensure the recycling program meets or exceeds the City's established standard for the diversion rate
Solid Waste	Ensure all contracts for solid waste stay within the contracted amount and are renewed prior to the expiration date
Solid Waste	Answer calls 24 hours a day, 7 days a week
Earth Day Event	Increase attendance and participation over prior year's event

## **UTILITY ADMINISTRATION-5001**

### **PROGRAM SUMMARY**

Utility Administration sets goals and strategies for the all Water Utilities Divisions. The Utility Administration provides budget coordination, oversight and management to the all Water Utilities Divisions. It also oversees all Water Utilities activities, contract compliance, and ensures that all purchases are from budgeted items and are appropriate for the system. Additionally, Utility Administration manages the Customer Call Center.

### SERVICES AND SERVICE LEVELS

## **Service: Department Management**

Management of the all Water Utilities Divisions includes ensuring 100% compliance with all city purchasing, accounting and personnel policies and procedures.

<u>Operations Reporting:</u> Supplies a quarterly report compiled from various sources to the City indicating overall performance measures for all Utility Divisions. Numerous regulatory reports are also created and submitted as required by the various regulatory agencies.

<u>Personnel Management</u>: Ensures that all personnel related items for employees are completed and adhered to concerning department evaluations, interviewing and recommending for hire, recommendation for disciplinary action, training, promotion, demotion, and adherence to policies and procedures.

<u>Contract Administration:</u> The Division is responsible for the management, inspection and cost control of utility and surface water services contracts. The goal is for all contracts to be in compliance with contract terms and within budgeted funding.

# **Service: Financial Management of Enterprise Funds**

<u>Budget Development and Financial Management of the Department:</u> Administration develops and coordinates the projection of funds for the next fiscal year for all Divisions, assists with or completes five-year fiscal planning of enterprise funds and reviews the Utility rate model with the Budget Office. Administration manages the budgets of the various Divisions within appropriated funds and works with the Budget Office when budget amendments need to be considered.

Management of Applicable Code of Ordinances: The Division also develops, manages and enforces Section 5 of the Code of Ordinances. This includes all sections involving water and wastewater services, how they are provided and the legal authority of the City. The billing and collection portion of the ordinance is managed by the Treasury Department with field support from Water Utilities

# **Service: Inter-Agency Communication & Public Education**

<u>Public Relations/Communications:</u> Administration maintains adequate levels of communication to personnel, city administration, elected officials, and citizenry through reports, agendas, memos, and formal reports. Interactions with the public and responses to resident and customer concerns/inquiries are also the responsibility of the Division.

<u>Consumer Confidence Report:</u> Administration ensures all Water Utilities Divisions appropriately complete and file EPA reports and communicates to our customers through the City's *Sugar Land Today* once per year as required by TCEQ.

Intergovernmental Relations: The Division assists aspects of the City's surface water conversion process and general utility planning efforts with external and internal entities, to help foster open communication between the City and regional water groups and entities, and provide legislative analysis of state and federal changes in law affecting the Water Utilities Division. Administration also serves as the liaison with local and regional organizations and attends local and regional water meetings and foster communications with groups including but not limited to, the FBSD, LID 17, the NFBWA, Region H WPG, Oyster Creek TMDL stakeholders, etc. Additionally, the Division represents the Water Utilities Division in the City's legislative efforts by providing analysis for the Intergovernmental staff, and briefings for Utilities staff and City Management as necessary.

<u>Outside Agency Liaison:</u> Administration coordinates audits, inspections, and requests for information, with outside regulatory agencies such as TCEQ, EPA, TDH, Region H Water Planning Group, Fort Bend County Subsidence District, GCWA, MUDs, NFBWA, and other local and state water providers. The Division tracks, reviews and comments on all compliance requirements resulting for new legislation, regulatory rule making and make necessary operations adjustments to stay in compliance.

<u>Environmental Regulations:</u> The Division assists ensuring compliance with all environmental regulations and mandates as well as monitors anticipated changes to water, wastewater and storm water regulations and determines appropriate implementation of all TCEQ and EPA mandates. Environmental regulations include the Water Conservation Plan, Drought Contingency Plan, vulnerability assessments, Sanitary Sewer Overflow Program, Emergency response plans along with monthly compliance monitoring and reports.

### **Service: Customer Service Coordination**

<u>Customer Call Center:</u> The call center is managed and calls are answered 24/7. The call center is responsible for fielding all calls for Public Works and tracking them through entry in the computer system. When a call results in a work request the information is then also entered into the HTE work order system and the work order number is then noted on the HEAT call system for tracking purposes. All calls are answered by a live person 24/7, no automated answering. After-hour calls are handled by an answering service, Monday thru Thursday, 5 PM-7 AM, Fridays, until 8 AM and 24 hours on Saturday and Sunday and calls are delegated to staff as appropriate. Calls for service can also be generated through the City's website.

<u>Work Orders:</u> Work orders are generated from various sources into the HTE work order system, which includes customer requests from residential/commercial customers, developers, and builders. The call center secretaries are responsible for processing work requests that are generated, assigning to Divisions for completion, and successfully closing work orders including the entry of personnel, equipment and inventory. The Division processes approximately 10,000 work orders per year in HTE. Work orders are entered into HTE no later than 48 hours after receipt. Work orders are also created by the field supervisors for follow up work requests.

## Service: Infrastructure Development & Planning

Long Range Planning and Utility Master Plan Development: The Division develops and manages infrastructure necessary to ensure adequate supply and treatment is available for new development. Administration anticipates and plans for supply and quality issues in the future and coordinates utility planning efforts with City plans for development with other Departments. The Division pursues alternative water supply strategies such as water conservation, water reuse, residential gray water systems, etc. and communicates with local and regional water entities.

The Division is responsible for updating the Water and the Wastewater Master Plans at least every five years to ensure that infrastructure is completed timely to meet the needs of development. Additionally, Administration ensures a regional approach to utility long range plans and infrastructure by developing and managing utility agreements with developers and Municipal Utility Districts (MUD).

<u>GIS/Hydraulic Modeling:</u> The Water Utilities group supports the IT Department's management of the GIS Data base. The Utility GIS links physical (size, depth, material, capacities, etc.), financial (construction and cost) and maintenance data to components of the utility system infrastructure. The Water Utilities Division uses the tool in its day-to-day operations and long-range planning efforts. The Water Utilities Division is responsible for the hydraulic modeling of the utility system through support of the Engineering Department.

<u>Capital Projects:</u> Administration develops and monitors a five-year utility capital improvement program for expansion and rehabilitation projects to ensure the City's water system meets all current and future demands. Services include planning, bidding, receiving authorization and warranty maintenance oversight, as well as project cost tracking and budget management for dozens of projects a year.

<u>Special Projects:</u> The Division works on various reports, studies and analysis that benefit the Public Works Department or overall organization.

Service	Service Level Commitments
Department Management	Supply a Quarterly Report to the Director displaying overall performance measures for the Department by the last day of the month following the end of each the Quarter
Financial Management of Enterprise Funds	Manage Enterprise Funds within annual budget and inventory with <4% shortage
Inter-Agency Communication & Public Education	All Water Utilities EPA and TCEQ reports completed and published as required
Customer Service Coordination	100% of work orders are entered into the work order system within 48 hours of receipt
Infrastructure Development & Planning	Oversee implementation of Master Plans and Capital Projects to meet all projected schedules for development and asset management needs

## **WATER DISTRIBUTION - 5005**

### **PROGRAM SUMMARY**

The Water Distribution Division operates, maintains and repairs approximately 431 miles of distribution water mains, 4,000 fire hydrants, 5,372 mainline valves and over 27,900 service connection lines. The Division is responsible for ensuring that water is delivered to customers with sufficient pressure to meet both their needs and emergency fire safety requirements.

### SERVICES AND SERVICE LEVELS

**Service: Inspections & Preventative Maintenance** 

## **Activity: Valve Inspection & Maintenance**

The City has approximately 5,372 mainline valves throughout the distribution system. The purpose of the valve inspection program is to insure valves operate properly to reduce the area of service disruption during system repairs and improve the water quality. Valve boxes tend to get buried or broken. The valve inspection program involves locating the valve, operating the valve, and painting the curb to mark location of each valve once per year. If the valve can't be located or the valve stack is full of dirt, it will be noted on the valve log and a work order is generated to correct the problem.

## **Activity: Hydrant Inspection & Maintenance**

Inspections are performed bi-annually on approximately 4,000 fire hydrants within the City. Inspection includes: trimming foliage from the hydrant and isolation valve, checking operation of the isolation valve, lubricating upper stem operating nut, removal of caps to flush and remove rust from barrel and check volume of water, grease and replace caps, verifying the hydrant number, and checking for leaks. The hydrant maintenance log is updated to reflect the date and type of maintenance completed. Once complete, crews often check to verify operation. Every two years, each hydrant is repainted and color-coded to the water main size that feeds each hydrant.

<u>Flow Testing:</u> Meet with contractors to perform hydrant flow testing for fire protection capacity. This is done to determine if the supply is adequate for fire protection for insurance rating purposes.

**Service: System Repairs** 

## **Activity: Main Repairs**

The City has approximately 431 miles of water mains that range in size from 4–30 inches in diameter. Shifting ground, especially during extended drought periods, puts tension on underground water lines and causes them to break or separate. Depending on weather conditions, the Division repairs approximately 120-350 mainline breaks per year. Since main breaks release large volumes of water, and

can damage personal property or create hazardous conditions if not attended to quickly, they are deemed an emergency repair. Main repairs are responded to within one hour and repairs are completed on the same day.

A typical water main repair includes: requesting emergency locates for other underground utilities, setting up traffic control devices, taking down fencing for rear easement water lines, removal of concrete for most front easements, excavating according to depth and soil condition with the proper sloping or shoring providing a safe work area, effecting the repair, backfilling according to City design standards, and washing down the area with the hydra-unit. If concrete removal is required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative final dress up date. A job ticket is completed listing work completed as well as parts required to complete the repair. Some larger breaks require turning off the main and splicing in a new section of pipe. When the water main is de-pressurized to make a repair, every service within the affected area must be turned off and the line must be super chlorinated for disinfection. Super-chlorinated water that is flushed must also be de-chlorinated to protect the aquatic life in area waterways. Once the main has been flushed and placed back in service, all services are turned back on and a bacteriological sample is collected. When possible, citizens whose water is affected will be notified prior to the repair.

## **Activity: Service Lines**

The City has approximately 27,900 water service connections that need continual maintenance and repair. This Division investigates approximately 2,250 leaks and completes approximately 875 excavated service repairs per year. If after an initial investigation, it is determined that the leak is the City's responsibility, a repair order is issued for a scheduled repair. A routine excavated repair consists of: calling for other utility locates, setting up traffic control devices, taking down fencing for rear easement water lines, removal of concrete for most front easements, excavating according to depth and soil condition with the proper sloping or shoring providing a safe work area, effecting the repair, backfilling according to City Design Standards, and washing down the area with the hydra-unit. If concrete removal is required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative final dress up date. A job ticket is completed listing work completed as well as parts required to complete the repair. Service Repairs are partially outsourced up to 200 repairs per year are performed by a contract vendor. Repairs are done within 10 days for standard leaks, and within 2 hours for an emergency repair.

## **Activity: Valve Repairs**

<u>Valve repairs:</u> Repairs to valves are generated mostly from the inspection program and require: requesting locates for other underground utilities, setting up traffic control devices, excavating according to depth and soil condition with the proper sloping or shoring to provide a safe work area, cutting/removing old valve, installing new valve, and backfilling according to City Design Standards. The line is properly disinfected and once the line has been flushed and placed back in service, all individual services are turned back on and a bacteriological sample is collected. If concrete removal is required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative

final dress up date. The work order is completed listing work completed as well as parts required to complete the repair. The Division's goal is to complete 95% of identified repairs annually.

<u>Hydrant Repairs:</u> Operation, maintenance and repair of approximately 4,000 fire hydrants. A fire hydrant repair can consist of both repairs with or without excavation. A routine hydrant repair requires: requesting locates for other underground utilities, setting up traffic control devices, excavating according to depth and soil condition with the proper sloping or shoring to provide a safe work area, remove/replace or repair existing hydrant and appurtenances, and backfill according to City design standards. If a hydrant is left out of service for more than an eight-hour period, an out of service donut ring is placed on the hydrant signifying that it is out of service and Sugar Land Police Dispatch is notified. After the repair is made, the site is restored back to its original state. Due to the safety issues, fire hydrant repairs are to be completed within 14 days.

## **Activity: Site Restoration**

When concrete and landscaping are removed to access service lines and mains, repairs are made and concrete and landscaping replaced to pre-repair state within 14 days.

<u>Concrete Restoration:</u> Approximately 40% of water repairs require removal of existing sidewalks, driveways, or streets. After repairs have been made by city crews, the replacement of concrete is transferred to the Public Works Department. Repairs made by outsourced crews are completed by that vendor.

<u>Landscape Restoration:</u> Landscape (including sod) removal is part of almost every excavated repair. Restoration includes replanting any trees, shrubbery, foliage, sprinkler repair, and full sod replacement. Every practical precaution is taken to minimize the removal of sprinkler system components and landscape.

## Service: Main Flushing

TCEQ requires flushing dead end water mains monthly to preserve the quality of the water delivered to the customer. There are approximately 370 dead end mains within the 431 miles of distribution system and each requires flushing approximately 5–15 minutes per month. Annually, the Division flushes predetermined main line fire hydrants to help remove any sediment or accumulated deposits within the distribution system. Water is flushed from the hydrant or blow off until the water runs clear. The amount of water flushed is documented to account for water loss and water accountability. System lines are flushed twice per year and dead end mains are flushed monthly.

# **Service: New Service Installations**

The City installs approximately 300 new water service connections per year that range in size from ¾" to 2". Anything above 2" requires a vault and is contracted by the builder and inspected by staff. New services require making a tap at the main and running a service line to the water meter. A routine installation requires the following: requesting locates for other underground utilities, setting up traffic

control devices, excavating according to depth and soil condition with the proper sloping or shoring to provide a safe work area, tapping the water main, connecting the new service, installing a water meter, and backfilling according to City Design Standards. Near side installations are on the same side of the street as the water main, while far side installations are on the opposite side of the street and require pulling a new service under the street. After the repair is made, the site is restored to its original state. New service installations are completed within 10 days of customer request.

Service	Service Level Commitments
Inspections & Preventative Maintenance	See Service Commitments Below
Valve Inspections & Maintenance	All valves inspected annually
Hydrant Inspection & Maintenance	Twice yearly inspection of all hydrants, with half painted and serviced annually
System Repairs	See Service Commitments Below
Main Repairs	Main breaks responded to within one hour; repairs completed same day 100% of time
Service Lines	Service line repairs completed within 10 business days for a routine leak: within 1 day for emergency repairs 98% of time. Respond to reports of main breaks within 24 hours
Main Flushing	At least 95% of dead end mains flushed monthly and main trunk lines flushed twice yearly
New Service Installations	99% of new meter installations completed within ten days of receiving request

## **WATER PRODUCTION - 5006**

### **PROGRAM SUMMARY**

The Water Production Division is responsible for producing and supplying quality water that complies with all Federal and State water quality standards and meeting system demands at all times. This includes operating, maintaining, and repairing 7 water plants, 17 ground water wells, 15 ground water storage tanks, 5 elevated storage tanks and 32 high service booster pumps. With the annexation of Fort Bend MUD #1 (RiverPark), the City has two separate water systems: the RiverPark System and City System.

### SERVICES AND SERVICE LEVELS

### **Service: Water Production & Treatment**

<u>Water Production:</u> This Division is responsible for the production of approximately 6.5 to 7.5 billion gallons of water per year from 17 ground water wells through two separate water systems and for producing and supplying quality water that complies with all Federal and State water quality standards and meets system demands at all times including fire protection. The Division is also responsible for operation, maintenance and repair of water production facilities. Scheduled operations and maintenance includes: daily operations check seven days a week and twice a day during peak times, reporting, ensuring proper line shaft lubrication, motor bearing lubrication, semi-annual well production efficiency testing, flow meter calibration and repair, and preventive maintenance to auxiliary drive units and motor control centers. Monitor usage during peak times and trigger drought plans if necessary.

<u>Water Treatment:</u> The Division treats approximately 7 billion gallons of water per year at 7 water treatment facilities. Water is treated with chlorine in a gaseous state for disinfection, hydrofluosilic acid (fluoride) for the prevention of tooth decay, zinc ortho-phosphate or poly-phosphate for corrosion protection of private home plumbing, sodium hydroxide for ph stability, and ammonia for the chloramine conversion. Scheduled maintenance includes: daily operations check and reporting, testing daily for each chemical additive at each water treatment facility, checking and adjusting feed rates, maintenance and repair of all chemical pumping equipment and appurtenances, chemical order and delivery. The Division must also complete and submit required TCEQ self-monitoring reports monthly. All repairs of the disinfection system, electrical system and chemical feed systems are completed or managed by staff.

Supervisory Control and Data Acquisition (SCADA): The City's water utility SCADA system consists of 31 Remote Terminal Units (RTU) that communicate with each other and the host via radio. Each of the 7 water treatment facilities RTU's communicates with its peripheral devices (wells, ground storage tanks, booster pumps, and elevated storage tanks). Utility operators are responsible for operating and maintaining the SCADA system – equipment repair, programming, and coordinating contracted repairs and additions. Repairs are completed in house and substantial repairs are outsourced.

<u>Emergency Operations:</u> Auxiliary generators/drive units are located at all the water plants and at several of the offsite well locations. This serves as a backup service to run the wells in case of loss of electrical power to the sites. Operations and maintenance includes weekly exercising and inspection, and monthly operation under a full load simulating an electrical failure following required NFPA standards along with completing a robust preventive maintenance program.

<u>Security:</u> The EPA mandated vulnerability assessment the Department completed in 2005 determined the appropriate levels of security necessary on the water system. The Division is responsible for operations, maintenance, and repair (internal and external) for security systems installed at 14 water production/storage/treatment facilities. The systems consist of access control along with additional levels of security at sensitive pieces of equipment. Repairs are outsourced.

## **Service: Water Storage & Distribution**

The overall goal of this service is to maintain water pressure above 35 PSI at all times; which is the TCEQ minimum before the City has to issue a boil-water notice. The City strives to meet a 45 PSI minimum.

<u>Water Storage</u>: The water system has 15 ground water storage tanks with a capacity of 12.0 million gallons and 5 elevated water storage tanks with a capacity of 4.3 million gallons. The purpose of water storage is to provide a reserve supply of water during peak demands. It also provides a reserve of water during outages, emergencies, firefighting, and provides additional detention time for disinfection. The Division's scheduled maintenance includes: daily operations checks and reporting, maintenance/repair and calibration of electronic level sensors, piping, valves, annual inspection, and cleaning.

<u>Water Distribution:</u> The City's water distribution system has 32 high service pumps (booster pumps) at the 7 water treatment facilities that distribute 7.0 billion gallons of water per year into the 421 miles of distribution system and 27,282 service connections that distribute water to approximately 84,500 customers. The purpose of the water distribution pumping system is to provide a continuous delivery of treated/finished water at adequate pressure to all residential, commercial and industrial water customers. The Division is responsible for scheduled operations and maintenance which includes: daily operations checks and reporting, packing pumps, motor bearing lubrication, semi-annual wire to water efficiency testing, flow meter calibration and repair, preventive maintenance to auxiliary drive units, generators, motor control centers, and facility maintenance. Major equipment repairs are outsourced.

Service	Service Level Commitments
Water Production & Treatment	Maintain 100% compliance with all federal and state water quality standards
Water Production & Treatment	Maintain and operate water production facilities to meet system demands at all times including fire protection
Water Storage & Distribution	Maintain minimum water pressure above 35 PSI under all conditions for public health reasons

## **WATER CONSERVATION - 5019**

### **PROGRAM SUMMARY**

The Division develops, plans, and manages water conservation programs and water education efforts to achieve peak water demand and water use reductions to contribute to the City's long term and alternative water supplies. In addition, the division maintains compliance with environmental regulations related to water conservation and water use reporting through development and implementation of the City's Water Conservation Plan and assistance with the City's Drought Contingency Plan. Provides support and fosters communications between outside organizations (HOAs, schools, non-profit and volunteer groups) and other City Departments on pursuing shared water conservation opportunities and water related projects.

### SERVICES AND SERVICE LEVELS

### **Service: Water Conservation**

The Division develops, renews, and submits the Water Conservation Plan to the TCEQ and TWDB for yearly compliance reports. The Division also oversees the implementation of the Plan. Additionally, the Water Conservation Program participates in the Fort Bend Subsidence District's <u>Learning to be Water Wise</u> education program and works with Intergovernmental Relations to pursue amending the Sugar Land Groundwater Reduction Plan to include conservation programing as a strategy to reduce groundwater withdrawals.

The water conservation program includes: promoting water conservation in various public events, developing water conservation educational material for distribution, developing water conservation program to promote public awareness and participation.

The Division serves as the Water Utilities Division's public relations liaison and manages preparation of the annual Water Quality Report, news releases and educational materials to communicate the City's priorities, activities, and accomplishments related to water.

Service	Service Level Commitments
Water Conservation	Implementation of Water Conservation Plan by holding at least 3 Water Education presentations, events, or workshops.

## **WASTEWATER COLLECTION - 5011**

### **PROGRAM SUMMARY**

The Wastewater Collection Division operates, maintains and repairs approximately 407 miles of sanitary sewer collection lines and 20,673 manholes in a sanitary manner that meets or exceeds all State and Federal guidelines. The Division also implements the TCEQ Sanitary Sewer Overflow Elimination Program.

## SERVICES AND SERVICE LEVELS

**Service: Inspections & Preventative Maintenance** 

## Activity: Manhole Inspection & Preventative Maintenance

The Division performs manhole inspections and preventative maintenance to help reduce the time and expense associated with large repairs. The program involves inspection of the manhole for debris, obstructions, infiltration, and deteriorations. Manhole walls, rings and covers are also inspected. Any deficiencies are recorded on the maintenance log so that a work order can be generated for repairs. Repairs include adjusting height of manholes, sealing rain water inflow points within the throat of the manhole, and cleaning obstructions in the bottom. The Division inspects approximately 10,120 of the manholes every year with internal staff. Each manhole is inspected once every two years and repairs completed as needed.

## **Activity: Line Cleaning**

Preventative Maintenance hydra-jet line cleaning is scheduled for problem sewer lines to reduce the potential for future sewer stoppages that may result in property damage, and to help identify system infiltration points. The line cleaning process involves both front and rear easement access depending on the location of the city sewer line, notifying the property owner of the planned activity, inspection of the upstream manhole for debris and signs of any irregularities. Upon completion, a record of the total footage cleaned, line condition, and date are all listed on the maintenance log. This Division cleans in excess of 18 miles of sewer line per year.

### LINE TELEVISING

Line televising is completed to verify the condition of the sewer lines or for conflict resolution with citizens in determining responsibility of failed sewer lines. This involves running a remote camera into the sewer line so that the actual condition of the line can be viewed without having to excavate. The Division will televise approximately 15 miles of sewer line per year.

**Service: System Repairs** 

## **Activity: Stoppages & Overflows**

Sanitary Sewer Overflows: When unauthorized discharges (overflows) of sanitary sewer occur beyond the confines of the collection system, samples are taken as needed and delivered to the lab to analyze for fecal content and Ph. After an on-site inspection has taken place, the area is cleaned up, calcium hypochlorite is applied to the affected area for disinfection and a report relating to the unauthorized discharge is completed and forwarded to the TCEQ. In 2009 the Department received an approved Sanitary Sewer Overflow Initiatives Program from the TCEQ which requires significant capital expenditure and preventive maintenance to insure improvement in the number of unauthorized discharges each year. Respond to overflows within one hour.

Stoppages-Investigate & Repair: This Division responds to approximately 400 sewer stoppages per year. A typical stoppage repair includes: removing the cover of the first manhole or clean out downstream of the blockage to provide access and pressure relief during main servicing. The main is then jetted using the hydra-unit until the blockage is relieved or if necessary, it may require an excavated repair. The upstream inspection point is checked to assure the blockage has been relieved. Once completed, the party reporting the stoppage is notified of service completion and is asked to check their private plumbing. A work request is then completed noting the location of the blockage and pertinent job details. If there is evidence of an overflow of wastewater at any location, a compliance report is generated and submitted to the TCEQ. Blockages are to be cleared on the same day.

### Activity: Collection Line/Lateral Repairs

If through investigation of a stoppage, sink hole, or televising the sanitary collection lines it is determined that there is a flow restriction due to collapsed pipe, root infestation, or some other anomaly, a routine sewer line repair is initiated. The Division performs approximately 130 sewer line repairs per year. Crews first identify the location of the affected area and notify property owners of the required excavation. A routine excavated repair consists of: calling for other utility locates, setting up traffic control devices, taking down fencing for rear easement sewer lines, removal of concrete for most front easements, removing sprinkler lines, excavating according to depth and soil condition with the proper sloping or shoring providing a safe work area, effecting the repair, backfilling according to City Design Standards, removing excess debris, and washing down with the hydra-unit. If concrete removal is required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative final dress up date. A work order is completed listing work completed as well as parts required to complete the repair.

## **Activity: Site Restoration**

When concrete and landscaping are removed to access collection lines, repairs are made and concrete and landscaping are replaced to pre-repair state within 14 days.

<u>Landscaping:</u> Landscape (including sod) removal is part of most excavation repairs. Restoration includes replanting of trees, shrubbery, foliage, sprinkler repair, and full sod replacement damaged or removed during the repair. Every practical precaution is taken to minimize the impact to sprinkler and landscape components.

<u>Concrete Restoration:</u> Approximately 10% of collection line repairs require removal of existing sidewalks, driveways, or streets. After repairs have been made by City crews, the replacement of concrete is transferred to the Public Works Department. Repairs made by outsourced crews are completed by that crew.

# **Service: Development**

<u>New Service Installations:</u> New sanitary services are installed primarily for Parks, Airport and the CIP customers as special projects. The sewer main is excavated and a gravity or force main is installed into the City main. This sometimes requires installation of small lift stations. The Water Utilities Division does not charge the requesting Department for the cost. Customer's sewer connections are installed by the builder's plumber and the tap is inspected by the Division. New installations are completed within 10 days of customer request.

<u>Line Locates</u>: Line locates involve physically verifying utility (water/wastewater) conveyance lines at the request of an outside entity or our CIP construction Division. Before construction begins in the City's ROW, contractors are required to call the Division to locate water and wastewater lines to prevent damaging the utility infrastructure. Utility maps, either in hard copy or electronic GIS maps, are checked for general line locations and if necessary, probing and exposing water lines is completed. The area is then marked indicating type and depth of utility.

<u>Special Projects/CIP Support:</u> Once or twice a month, the Division assists other Divisions with water/sewer installations and repairs for which they had not planned or budgeted. This normally requires a full crew and the use of heavy equipment. These usually involve pump/motor maintenance and repairs at park facilities, storm water detention ponds, City-owned irrigation controllers, temporary water or wastewater service installations or heavy equipment repairs at the Airport or Park facilities.

Service	Service Level Commitments
Inspections & Preventative Maintenance	See Service Level Commitments Below
Manhole Inspection & Preventative Maintenance	Biennially inspect all the city's sanitary manholes 90% of the time
Line Cleaning	Televise 16 miles of sanitary sewer main lines 100% of the time
Line Cleaning	Televise 25 miles of sewer line 100% of the time
System Repairs	See Service Level Commitments Below
Stoppages and Overflows	Respond to sanitary sewer stoppages within one hour 98% of the time
Collection Line/Lateral Repairs	Standard repairs completed within 10 business days; repair started within 2 hours for emergency repairs

## **WASTEWATER TREATMENT - 5012**

### **PROGRAM SUMMARY**

The Wastewater Treatment Division transports and treats wastewater to a quality that meets or exceeds Federal and State water quality standards including meeting all TPDES permit discharge requirements for each wastewater plant. The Division is responsible for operation, maintenance, and repair of 101 sanitary sewer lift stations, and two wastewater treatment plants through a combination of City staff and contract operations firms.

### SERVICES AND SERVICE LEVELS

#### Service: Wastewater Treatment

<u>Wastewater Treatment:</u> The City treats approximately 3.1 billion gallons of wastewater from residential, commercial and industrial customers at two wastewater treatment facilities through contract operations. RiverPark wastewater is treated by Fort Bend MUD 112 via a contract acquired through the annexation of Fort Bend MUD 1. This Division oversees the annual expenditures, approves repairs, ensures contract compliance for the treatment plants, and writes and completes TCEQ TPDES discharge permit renewal(s). Treated wastewater must meet or exceed all EPA and TCEQ discharge permit requirements.

<u>Emergency Operations:</u> The two wastewater treatment plants have emergency operation contingency plans. This serves as a backup service plan to run the facilities in case of loss of electrical power or catastrophic failure. The plans are reviewed and revised annually along with the TCEQ/EPA approved Risk Management Plan and Emergency Response Plan.

# **Service: Wastewater - Lift Stations**

The Division ensures that lift stations are operational 24 hours per day, 7 days per week with no service interruptions.

<u>Wastewater Collection:</u> The City has 101 sanitary sewer lift stations that pump approximately 3.1 billion gallons of wastewater to the two wastewater treatment facilities. This Division is responsible for ensuring that facilities and operations comply with all federal and state wastewater quality standards and meet system demands at all times. The Division oversees operation, maintenance and repairs both internal and contracted. Scheduled operations and maintenance includes: daily Supervisory Control and Data Acquisition (SCADA) monitoring, routine lift station inspections and reporting, ensuring prompt delivery of wastewater to treatment plant, pump efficiency testing, flow meter calibration and repair, preventive maintenance to motor control centers (electrical), overseeing facility rehabilitation projects, and diagnosing and completing repairs to pumps, motors and other equipment as needed.

<u>Emergency Operations:</u> Each of the 101 lift stations has an emergency operations contingency plan. These serve as a backup service plan to run the facilities in case of loss of electrical power or catastrophic failure to pumping equipment. These plans are reviewed annually and revised as necessary.

### **Service: Odor Control**

Prompt delivery of wastewater to the treatment plants from the collection system is necessary to limit malodors at the treatment plants and major collector lift stations. The more aged wastewater becomes, the more likely it will produce noxious gases and create a quality of life issue for nearby citizens. Where odor is a continual nuisance, odor control equipment is required to mitigate the problem. This Division is responsible for the operation, maintenance and repair of all odor control equipment. Scheduled operations and maintenance includes: routine operations checks and reporting, and overseeing facility rehabilitation projects. Replacement of periodic odor control media and repair of equipment is performed as necessary.

Service	Service Level Commitments
Wastewater Treatment	Maintain 100% compliance with Federal and State water quality standards including each wastewater plant's TPDES permit discharge requirements
Wastewater – Lift Stations	Target zero preventable service interruptions or backups by maintaining pump and emergency equipment operation at the lift stations

## **CUSTOMER SERVICE - 5015**

### **PROGRAM SUMMARY**

The Customer Service Division is responsible for responding to all initial calls for service from customers, maintaining large meters, assisting the distribution and collection crews with preventive maintenance, and responding to customer work orders generated by the Treasury Division. The Division responds to all requests for service 24 hours a day 7 days a week.

### SERVICES AND SERVICE LEVELS

### Service: First Response- Customer Calls For Service

First response calls are responded to within 24 hours unless it is determined upon initial contact to be an emergency. An emergency call is responded to within one hour and includes calls for main line water leaks, discolored water, low water pressure, no water, a sewer stoppage, or a request for emergency cut off due to a severe private leak. Emergency calls and other calls for service are initially investigated to determine responsibility. If the problem is a City's responsibility, the technician will either take the appropriate steps to resolve the problem immediately or schedule it for City backhoe crews to repair. If the problem is determined to be the customer's private issue, the technician will notify the homeowner either verbally or by a door tag if no one is home.

### **Service: Meter Maintenance**

### **Activity: Meter Maintenance & Testing**

Meter maintenance includes meter box replacement, curb stop replacement, meter locates, and new meter box installations. Service repairs in the Division are completed in situations where a minor leak has been discovered or around the City's water meter. Minor leaks do not involve excavation and can be repaired by one person in a minimal amount of time. Usually personnel will have to physically locate leaks on the private side of the water service to satisfy the customer that it is not the City's responsibility. Problems with water service are typically initiated by some type of contact from the customer. These calls include complaints regarding water pressure or discolored water, checking the private isolation valve, checking for a malfunctioning private water treatment device, addressing water pressure, and discolored water problems. If no problem is detected, a meter flow test is initiated to determine gallon per minute flow rate. Generally requests of this type require significant time for resolution due to investigating private plumbing issue.

<u>Large Meter Testing:</u> Meter testing is performed to all 148 large meters (greater than 2 inch) operating within the City. It is necessary to determine the accuracy of these meters to prevent unnecessary loss of revenue. This Division tests and supervises testing of approximately 100 large meters per year and repair or replaces those not meeting TCEQ standards.

Service	Service Level Commitments
First Response – Customer Calls for Service	Respond to calls for service within 24 hours and emergency calls within one hour
Meter Maintenance	Test and repair all large meters per schedule

# **SURFACE WATER - 5301**

### **PROGRAM SUMMARY**

The Surface Water Division is responsible for all planning and implementation of the City's required reduction in ground water use. The major component is our partial conversion to surface water. The Surface Water Fund accounts for all operating and capital improvement projects related to the City's required conversion to surface water, which is funded through a groundwater pumpage fee per 1,000 gallons of water produced. There are a total of 17 entities including MUDs, HOAs and private businesses that have joined our Groundwater Reduction Plan (GRP.) Entities outside the City limits pay an out-of-City service charge over the monthly fees; premiums from New Territory and Greatwood are credited to a debt reduction fund based on Strategic Partnership Agreements (SPAs). The Division has its own financial Enterprise fund that must be well managed.

### SERVICES AND SERVICE LEVELS

## Service: Groundwater Reduction Plan (GRP) Implementation

The City will be in compliance with the Fort Bend Subsidence District Regulatory Plan by meeting the required 30% reduction in groundwater usage yearly beginning in October of 2013.

<u>Groundwater Reduction Plan (GRP) Implementation:</u> The Division oversees the surface water conversion process via implementation of the Groundwater Reduction Plan. In this capacity, the Division provides implementation project management, water supply contract management, data analysis, conduct studies and evaluations, and coordination of GRP participants in meeting Fort Bend Subsidence District regulatory requirements. Additionally, the Division creates and files all regulatory documentation related to the implementation of the GRP/surface water conversion process.

The Division manages the Waterwise program via the contract with the Fort Bend Subsidence District for City participation and coordinates communications and regulatory efforts between the 17 GRP participating entities. Additionally, the Division manages meter data collection and supports Treasury in invoicing GRP Participants for Pumpage Fees.

<u>Financial Management:</u> The Division manages the short and long term goals of the GRP and ensures funding is adequate to sustain the self-supported Surface Water Enterprise Fund. All expenses are tracked and coordinated through a joint effort with the Office of Budget and Research.

<u>Regulatory Filing:</u> The Surface Water Program coordinates the creation and filing of select regulatory and mandated documents, including, but not limited to the TWDB water audit, and the Water Conservation Plan/Drought Contingency Plan.

# **Service: Water Supply Management**

<u>Surface Water Supply Contract Management:</u> The Division oversees implementation and management of surface water supply contracts between the City and various entities. Currently the City has contracts with BRA and GCWA receive raw surface water. The City also anticipates an agreement with FBC WCID No. 2 to purchase subleased raw surface water. The City has a contract to provide water to FCCA, Telfair/LID 17, The Orchard, and Venetian Estates. Staff manages all relevant metering data from these contracts and the necessary reporting functions. Additionally, the Division determines the daily releases from the BRA reservoir system based on current water demands.

<u>Intergovernmental Coordination:</u> The Division is responsible for coordinating and managing all aspects of the surface water conversion process. This process includes planning efforts with external and internal entities as well as fostering open communication between the City and its regional partners. Additionally, the Division provides legislative analysis of state and federal changes in law affecting the Water Utilities Division. The Division works with various regional groups including but not limited to, the FBSD, LID 17, the NFBWA, Region H WPG, and Oyster Creek TMDL stakeholders.

Service	Service Level Commitments
Groundwater Reduction Plan	See Service Level Commitments Below
Groundwater Reduction Plan (GRP) Implementation	The GRP will be administered according to the City's guiding policies to maintain compliance with the FBSD Regulatory Plan including maintaining accurate data, filling annual reports on time, and implementing programs according to the Water Conservation Plan
Groundwater Reduction Plan (GRP) Implementation	Maintain 100% compliance with state and local agencies and to meet the 30% groundwater reduction requirements in the GRP
Water Supply Management	See Service Level Commitments Below
Surface Water Supply Contract Management	Manage water agreements to meet the needs of the GRP through weekly monitoring of drought and conditions that may impact the City's ability to deliver water
Intergovernmental Coordination	Stay abreast of and report on water rules and legislation pertinent to the City
Intergovernmental Coordination	Maintain the highest level of service to help and assist all regional groups to meet all regulatory compliance for the 30% Groundwater Reduction Rule